The **IGGIST** EMIST AND

WHOLESALER MANUFACTURER RETAILER -

FEBRUARY 25, 1950



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CHEMIST AND DRUGGIST for RETAILER—WHOLESALER—MANUFACTURER

FEBRUARY 25, 1950

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NEWS OF THE WEEK

Wills

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Gift to Birdsgrove House. — The Vational Association of Women Pharmaists is sending to the Birdsgrove House und a sum of £10 10s., proceeds of a
ecent dinner and dance organised by the
Association.

Legal Reports ...

Colonial Technical Education. — Mr. Arthur Creech Jones (Secretary of State or the Colonies) has set up a Committee to advise him on the development of Colonial Colleges of Arts, Science and Technology.

Works Fire.—Fire broke out at the factory storeroom of Universal Metal Products Co., Ltd., Langley Road, Pendleton, Lancs, on February 3. Production is understood not to have been interfered with.

Soap Ration Permits.—Permits issued on form Soap 2A/49 expire on March 25 and holders should lodge them for renewal with their local food office as soon as possible after February 26. The new permits (2A/50) will be valid for two years from March 26.

New Medical Research Building.—After a delay of over ten years, the National Institute for Medical Research has moved into new buildings at Mill Hill, London, N.W.7. The King is to open the building officially on May 5.

Confectionery Imports. — Medicated, sugar and chocolate confectionery may now be imported under block licensing arrangements from Czechoslovakia, France, Holland, the Republic of Ireland and Spain. Sugar confectionery may be imported from Australia, Cyprus, Finland, Italy, Jamaica, Kenya and Turkey. Holders of licences (series IMP and IMP/K) need not apply for block licences, as forms will be sent to them. Other importers who are interested should communicate with the Cocoa, Chocolate and Sugar Confectionery Division, Ministry of Food, London Road, Stammore, Middlesex.

Scottish Health Service Appointments.

—The Secretary of State for Scotland has reappointed Dr. David McCall (secretary of the Scottish Department, Pharmaceutical Society), to the Scottish Health Services

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Council and the following to the Pharmaceutical Advisory Committee: Dr. I. M. Macleod, Inverness (a member of the Drug Accounts Committee), Mr. A. Murray, M.P.S., Glasgow, and Mr. G. D. Stewart, M.P.S., Edinburgh. Mr. J. J. Stone, M.P.S. (chairman, Edinburgh Health Committee) has been appointed to the Local Authority Services Advisory Committee.

Castner Medal.—Shown recently in Paris at a Conference of Masters of Mints as an outstanding example of British medal design, the Castner medal of the Society of Chemical Industry, awarded in 1947



but only recently struck, commemorates Hamilton Young Castner (1858-99). Castner was one of the founders of the Castner-Kellner Co., a component of the present Imperial Chemical Industries, Ltd., by whom the medal was given (with a lecture-ship) to the S.C.I. The first holder is Dr. Alexander Fleck.

Aluminium as Wrapping Material .-- At a meeting of the Institute of Packaging in Manchester recently, Mr. W. A. Harring-ton read a paper entitled "Aluminium Foil as a Packaging Material." He said that, when using aluminium foil as a functional —as distinct from a purely decorative—material, it was usually necessary to add some other material such as paper or transparent film to provide a moisture-vapour barrier. In thicknesses of less than 1/1000 in., minute pinholes were to be found in the foil. Combinations of foil and film had been found to reduce the transfer rate to a minimum. When moisture must be retained within the package, foil should be on the inside. To prevent the admission of moisture into the package, the positions might be reversed. Lamination must be complete, with the two materials in full contact over their whole areas, wrapping in one material and overwrapping with another showing little advantage over the use of the better barrier material only. It was essential that the wrap should be sealed and the most convenient method was to apply a thin thermoplastic coating. Foils

were now available coated with high-tem perature seal-coating on one side and low temperature seal coating on the other, both based on vinyl resin copolymers. The ther moplastic coatings conferred a high degree of protection against corrosion. An in teresting material has recently been produced by laminating foil to foil. Each foil might be of such a gauge that perforation or pin-holing would be present but the resultant sheet was much more ductile than a similar thickness of aluminium in one sheet, and the moisture transmission rate was practically zero.

LOCAL NEWS

London Chemist Golfers.—At the an nual meeting of the London Chemists Golfing Society on February 15, the following officers were appointed for 1950:—President, Mr. F. G. Wells; Captain, Mr. H. R. Nightingale; Vice-captain, Mr. G. H. Maile; Secretary and Treasurer, Mr. W. M. Ballantyne, 47 Gray's Inn Road, Londor W.C.1; Assistant Secretary, Mr. G. T. Morson.

Figures Must Support Complaints.—A a meeting of the Canterbury Executiv Council on February 8 the chairman aske if anything could be done about complaint against chemists of incorrect dispensing The Clerk said it would not be fair t draw any conclusion from the cases befor the Council. An accurate assessment could be made when the full figures of all th tests became available.

Scottish Chemists' Protests.—At meeting of the Banff, Moray and Nairn Exe cutive Council on February 2 it was agree to send a strong protest to the Departmer of Health for Scotland on arrears of payment to chemist-contractors and expressing dissatisfaction at the refusal to introduce duplicate prescription forms, despit the passing of a resolution asking for the passed at a recent conference of the Scotish Association of Executive Councils.

Prohibited Appliances under N.H.S.—The Essex Pharmaceutical Committee recently circulated to all chemist-contractor in its area a list of seventy-four appliance (compiled by the East Anglian Joint Pricing Committee) that have been ordere by doctors but are outside the list of Appliances (Appendix C). Chemists are being advised to check prescriptions for appliances and also to see that drugs prescribed by dentists are in the official lit (Appendix B).

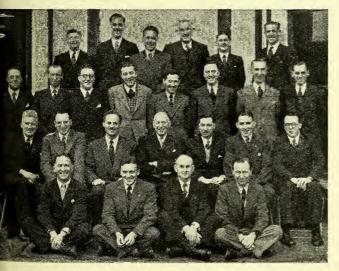
Southend N.P.U. Branch.—A meeting of the Southend Branch of the National Pharmaceutical Union was held on February 2. Mr. R. H. Kemp (assistant secretary, N.P.U.) in the chair. Mr. S. J. Stearn spoke on the activities of the N.P.U., Chemists' Defence Association, Chemists Mutual Insurance and the Chemists Federation. He also dealt with National Health Service dispensing, expressing dissatisfaction with the reduction container fees. In the discussion that ollowed members expressed their views on delayed payments, price averaging and a luggestion that all "over-5s." prescriptions hould be returned to the pharmacist for thecking purposes after pricing.

Lanarks N.H.S. Costs.—The National Health Service in Lanarkshire cost over E12 millions in 1949 (about £3 per head of the population). More than 1,300,000 prescriptions were issued, at a cost of E330,000 (13s. per head). At a meeting of the Executive Council the large volume of items ordered as drugs but which were not within that category was criticised. rescriptions had called for special soap, narmalade, invigorating foods and other nusual items. Many prescriptions of £1-5 in value were included, while some were actually in the region of £20. One proposal advanced to bring down the costs vas that the more expensive drugs should only be supplied on the instructions of a pecialist.

Hendon and Edgware Meeting.—At a recent meeting at Edgware of the Hendon and Edgware Branch of the Pharmaceuti-Society, Mr. C. Beaven, Ph.C., A.R.I.C., gave an illustrated address on "Modern Conceptions of Drug Action." Answering subsequent questions, he said that the precise way in which expectorants such as liquid extract of liquorice achieved their effect was largely unknown. That was not surprising when one considered that even the way adrenaline worked was not understood. The drowsiness produced in some patients by antihistamine drugs did not seem to be explained by the receptor blocking theory. Those drugs had some properties in common with analgesics since they depressed the central nervous system of some patients.

Surcharges Against Doctors Withdrawn.—At a meeting of the Bradford Executive council on February 8, it was decided to notify all doctors who had been surcharged for certain items which they had prescribed, that their surcharge would be withdrawn until the Council had considered the matter further. The medical Committee is pointing out to the Ministry of Health that an early report is desirable from a Ministerial committee at present considering the question. It was stated at the Executive Council's meeting that Bradford chemists had dispensed 2,374,851 prescriptions up to the end of December 1949. Payments made to them

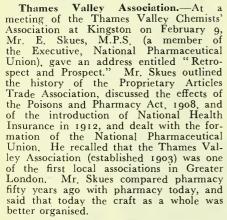
totalled £295,882. Payment had been made in full up to July, but on account only from July to December.



HOME SALES CONFER ENCE.—A home sales division conference for the medical representative staff of Sharp & Dohme, Ltd., Hoddesdon, Herts, held recently, was followed by a luncheon, which was also attended by members of the executive staff. The social committee of the company organised recently also a twenty-first anniversary dance, at which badges for five, ten and twenty years' continuous service were presented to a number of employees.



DANCERS AND DINERS CAUGHT BY THE CAMERA.—Left, the "Gay Gordons" being danced by guests at the annual dinner and dance of the Aberdeen Pharmaceutical Association (see below). Right, Mr. W. T. Elder (president of the Association) replies to a toast at the dinner.



Joint Meeting at Preston.—Local doctors attended, by invitation, a recent meeting of the Preston Pharmacists' Association, at which Dr. W. A. Simpson spoke on "Recent Advances in Drug Therapy." Streptomycin occupied an important place in the list of drugs discussed. The speaker thought that until more was known of the drug it should be left to specialised treatment in hospitals. Other drugs dealt with were penicillin, the sulphonamides, vitamin B₁₂, cortisone, Antabuse, p-aminosalicylic acid, aureomycin, Chloromycin, calciferol, the antihistamines, folic acid, and vitamin B in the toxæmias of pregnancy. During the discussion a tubercu-



losis specialist said he believed a simonth pre-hospital course of streptomycgiven by the general practitioner (und the instructions of a specialist) would codown the hospital treatment period.

Aberdeen Dinner and Dance.-Whe the Aberdeen Pharmaceutical Association held its annual dinner and dance recent (see C. & D., February 18, p. 200), tl guests included officials of the Aberdee Branch, British Medical Association, ar of the local Executive Council, togeth with Alderman W. J. Tristram, Liverpoo and Mr. E. W. Godding, London. Tl toast "The Aberdeen Pharmaceutical A sociation" was proposed by Alderma Tristram and responded to by the predent (Mr. W. T. Elder) (see picture). "Of Guests" was proposed by Mr. A. A. Me drum (a member of the Pharmaceutic Society's Council), and replied to by Pr fessor D. Campbell (president, Gener Medical Council). Mr. E. W. Goddin also replied on behalf of the guests. M C. A. Michie, proposing a vote of than to the president, paid tribute to the ab manner in which he had carried out h duties during his term of office. Dancir followed until the "early hours." Durir the evening a recording made at a di cussion held the previous evening wa played over. Under the title "Should Gentleman Pharmacist marry a Lac Pharmacist?" members of a "brain trust," unaware that their remarks wer being recorded, had given short speeches.

TOPICAL REFLECTIONS

A Mixed Bag

The resolutions for inclusion on the agenda of the Pharmaceutical Society's Branch Representatives' meeting in London on May 18 (p. 217) merit careful consideration. As on other recent occasions, they are of unequal relevance. Some disclose more zeal than knowledge. First in alphabetical order among the contributors comes the Aberdeen Branch, an offshoot of our oldest association of pharmacists. It is difficult to attach a definite meaning to the phrase "there are too many official or semi-official formulas." The distinction between official formulas-those, in the words of the Shorter Oxford Dictionary, "authorised by the pharmacopæia"—and semi-official formulas—those possessing a status otherwise derived—is clear-cut. When the Branch asks support for the proposal that the Society "should endeayour to have all official formulas brought together in one publication," the natural comment is that the publication of pharmacopœias is not a function of the Society. I sympathise with the suggestion that no preparation should be altered materially without making a change in nomenclature: the crucial word in the suggestion is, of course, "materially." On p. 197 will be found another idea, formulated by the same active organisation, which might well have been included, with slight verbal changes, on the agenda mentioned. The Branch asks for support in "a campaign to ban free-gift schemes." Apart from other considerations, it seems to me that the more professional pharmacy becomes, the more incompatible it will be with schemes of this kind. Discrimination based on common sense will not necessarily place every kind of trader's gift under the same ban: for instance, a free sample of a new product, packed so as not to be confused with a standard size, seems unobjectionable.

Not All Practical

Some of these branch resolutions have a disarming air of moderation. One from Liverpool desires the Society to obtain jurisdiction over the registration of new premises as pharmacies. An argument in favour of this desire may be that the Society already has power to decide on the suitability of any pharmacy as a place for training pupils. But there is a great difference between power to control a particular function in a shop and power to forbid the opening of shops of that class. In the

present state of public opinion on restraint of trade, limitation of the number of pharmacies in Great Britain does not appear to be a practical proposition. In the second resolution from Sheffield, moderation is real and is, I think, a weakness. Surely it would have been better to ask for the systematic inspection of hospital dispensaries, as well as those in health centres, rather than to confine the suggestion to the latter. The third resolution from Woking seems more moderate than practical: it asks that "owners of premises which it is desired to register under the Pharmacy ' should give an undertaking to observe "the provisions of the statement upon matters of professional conduct." edict, if accepted, would presumably affect only aspirants to new proprietorships: those already in possession would be regarded as "on the foundation." form of the undertaking would, I conjecture, be a matter for grave deliberation by the Council. Two branches, Chester and West Kent, have revived the request for territorial or regional representation on the Council: they have, I trust, the support of an increasing number of branches.

Problems of Packaging

News items on pp. 218 and 222 bring before us again the subject of packaging. It will be noticed that a team including twelve specialists in seven branches of packaging has been visiting the United States in search of fresh ideas, and that an international trade fair, to be held at Chicago on August 7-19, will afford opportunities for promoting sales of goods from Western Europe, Packaging from the exporter's point of view is so important a sales factor that I need not comment on it. What Mr. Joseph H. Singer has said about American machines is much to the point. When the home market merges into the export market, the question arises whether one style of finish or several will be more likely to hit the various overseas tastes. If a new product is already bringing a satisfactory number of repeat orders from home centres, what is to be the manufacturer's choice of a pack or packs for overseas trade? Will the style found successful in the United Kingdom be equally or nearly equally acceptable in the Dominions. the United States, the Colonies and foreign countries? Designers are always probing the unknown. The pursuit is very absorbing—and very difficult.

LEGAL REPORTS

Unauthorised Possession.—The Liverpool stipendiary magistrate recently imposed a fine of £40 or two months' imprisonment on John Main Odoha for being in unauthorised possession of Indian hemp on December 29, 1949.

Ammonia Deficiency.—At Marshland, Norfolk, magistrates' court on February 13, Sturton & Son, Ltd., wholesale chemists, Bridge Street, Peterborough, were fined £10, with £6 costs, on a charge of selling to a Walton Highway shopkeeper bottles of household ammonia bearing a false description. The prosecution alleged that the labels stated the ammonia content to be 4.5 per cent., whereas analysis revealed deficiencies of 38 to 39 per cent.

Pharmacy Act Fines.—At Worcester, on February 17 Blake's Medical Stores, Ltd., 8 Sunnyhill Road, Streatham, London, trading at 44 Broad Street, Worcester, were fined a total of £10, with £3 3s. costs, on charges relating to the sale of a seasickness remedy containing hyoscine. The Pharmaceutical Society's solicitor stated that, an inspector of the Society visited the premises in November 1949 and bought the preparation, afterwards explaining that it was a test purchase. For the defence it was argued that the tablets had been obtained and put on sale in all innocence, and the defendants considered that the suppliers had been to some extent at fault.

Winding-up Order.—In the Chancery Division, London, on February 20, an order was made for the compulsory winding-up of Ashya Co., Ltd., manufacturers of perfumes and essences, Turners Road, Bow, E.3. For the petitioners, the Commissioners of Customs and Excise, it was stated that they were creditors for £30,436 unpaid purchase tax; they were supported by the Commissioners of Inland Revenue. The company had an authorised capital of £100 but it was not known how much was paid up. The company did not appear. The presiding judge asked how a company like that got credit from the Crown to the tune of £30,000. The reply was that it did not get credit. It must have been doing a brisk business. The judge: "No one seems to be interested except the Crown and there are no other creditors. Usual order."

Dermatitis From Hair Dye.—Damages totalling £600 were awarded to Mrs. Florence Holmes, Arnos Grove Court, New

Southgate, London, N.11, in an action in the King's Bench Division, London, re cently, against Frederick William Ashford in business as a ladies' hairdresser unde the name of Estella, at Bowes Road, Lon don, N.11, and against Rapidol, Ltd. manufacturers and suppliers of Inecto Rapid hair dye, for damages in respec of dermatitis of the scalp contracted afte the dye had been applied to her hair. The claim against Mr. Ashford was on the ground that the dye was not fit for the purpose for which she bought it; tha against the company was on the ground of negligence in failing to take prope steps to ensure that the dye was no applied to the heads of persons to whon it might cause dermatitis. Mr. Ashford admitted no liability. Messrs. Rapido admitted knowing that the dye, where applied to the heads of certain persons might cause dermatitis, but denied liability on the ground that the retailer had been given written warnings to that effect or open labels attached to each bottle, or the package containing the bottles, and it the booklet supplied with each package Mr. Justice Croom-Johnson, before whon the case was tried, said that Mrs. Holme had had the chagrin of temporarily loosing almost all her hair. He found that Mr Ashford had not known the dye to b dangerous when he applied it and have never warned Mrs. Holmes, and that h was liable to her in contract on the ground that the dye was not fit for the purpos for which she bought it. He (the judge had not the slightest doubt but tha Inecto Rapid hair dye was highly danger ous and unsuitable material to be applie to the hair of the plaintiff. There wer cautions attached to each package, but the cautions did not state that medical advic should be taken. The booklet suggested test a hairdresser might apply, but evidence had been given by a medical practitioner that the test would only show whether it was likely that the person would suffer from an application of the dye; i gave no guarantee of immunity. He had come to the conclusion that there was, i effect, no warning by the manufacturers is the present case.

Illegal Penicillin Sales.—At Clerkenwel magistrates' court on February 14, Joachir Gelb, trading as the Gelpol Trading Co. at 28 Store Street, W.C.1, pleaded guilt to a summons alleging that, not being

person mentioned in Section 1 of the Peniillin Act, 1947, he unlawfully sold peniillin (in a preparation known as Orapeniil tablets). Mr. A. C. Castle, for the Pharmaceutical Society, said that the deendant (a Polish subject) had no medical or pharmaceutical qualifications and was not entitled to supply penicillin. An inpector of the Pharmaceutical Society ioticed an advertisement in a Polish newspaper, the "Polish Soldiers' Daily," inviting beople to obtain penicillin from the Gelpol Frading Co. The inspector sent a postal order to the defendant and received a pottle of Orapenicil tablets. He reported the matter to the Society, which considered t a proper case for the court. There was no suggestion of improper trading against he defendant: it was merely a contra-vention of the Act. Counsel for Mr. Gelb aid that his client was permitted to export penicillin, and frequently did so via he European Refugee Welfare Organisaion. He had thought, when he sold the ablets, that they were wanted for export s anyone could obtain penicillin in this country merely by going to a doctor. The nagistrate said that he would discharge Mr. Gelb conditionally for twelve months on payment of £5 costs.—At West London police court on February 14, Tazab & Co., Ltd., wholesale druggists, Hans Place, Westminster, were fined £10 and ordered o pay £3 3s. costs for unlawfully selling penicillin (in Orapenicil tablets) to E. Denerley, otherwise known as E. Denersk, Halifax. Mr. Castle said the Act was passed to ensure that strong control was out on penicillin. If it was used indiscriminately by people and they then contracted a disease or illness for which the treatment was penicillin it might prove useless. It was quite illegal for anyone to sell penicillin in any form or in any strength whatever except on the prescription of a doctor, dentist, etc. Pointing out that in parts of the world there was a great shortage of penicillin, Mr. Castle added that in Poland there was a black market in it. In this case, however, the tablets could only have been used in this country. In reply to his letter, in which he enclosed 18s., the inspector received a pamphlet and a bottle of Orapenicil. It was pleaded on the company's behalf that the preparation was a mild form of penicillin. The business was a mail order business, and because the letter was written in Polish it was thought the tablets were being bought by a customer in order to be sent abroad.

COMPANY NEWS

INTERNATIONAL SPONGE IMPORTERS, LTD. — A proposal to capitalise £32,539 from capital reserve account, and to distribute a one-for-five capital bonus, has been approved by shareholders.

SOUTHALLS (BIRMINGHAM), LTD. — Net profit for 1949, after taxation, amounted to £113,726, against £116,501. Dividend for the year is maintained at 32½ per cent.

by a proposed payment of a final dividend of 22½ per cent., less tax.

BORAX CONSOLIDATED, LTD.—Net profit for 1949, after taxation, amounted to £408,667, against £267,597. A final dividend of 6 per cent., plus bonus, 2½ per cent., maintains deferred ordinary dividend for the year at 12½ per cent.

HOUGH, HOSEASON & Co., LTD.—Mr. Arthur Maude, M.P.S., has been appointed a director. Mr. Maude was formerly for twenty years general manager, secretary and a director of James Woolley, Sons & Co., Ltd. (see C. & D., February 18, p. 202).

BUSINESS CHANGES

Boots, Ltd., have opened a branch at g Blackfen Parade, Blackfen, Sidcup, Kent.

MR. F. J. WALKER, M.P.S., is to carry on the business of Walker & Son, chemists, 79 King Street, Castle Douglas, Kirkcudbrights.

A. W. GAMAGE, LTD., Holborn, London, E.C.I, have appointed Mr. H. N. Whalvin, their buyer in the drugs and toilet goods departments, as from March 6.

HARKER STAGG, LTD., is the abbreviated title adopted by C. R. Harker, Stagg & Morgan, Ltd., Emmott Street, London, E.I. Printed matter bearing the old title will be in circulation until stocks are exhausted.

Trufood, Ltd., are transferring their sales and advertising office, medical and professional information service departments on March 3 to Green Bank, London, E. 1 (telephone: Royal 7905).

EVANS MEDICAL SUPPLIES, LTD., Speke, Liverpool, 19, have opened a branch establishment in Karachi to serve East and West Pakistan. Mr. W. G. Poole, M.P.S. (Australia and Great Britain) has been appointed acting manager. Mr. L. V. Duggan has been appointed representative to call on chemists in the counties of Radnor, Cardigan, Carmarthen, Pembroke and Brecknock.

TRADE NOTES

Chemists' Sundries in Northern Ireland.—A 128-p. catalogue issued by S. Haydock & Co., 21 Corporation Street, Belfast, lists chemists' sundries and laboratory equipment stocked in the firm's warehouses,

Showcard.—A new and attractive show-card for Damaskin Quick-tan, manufactured by Colloidal Chemists, Ltd., London, is now available. The company's distributors are Thos. Christy & Co., Ltd., Farnham, Surrey.

Distribution Change.—Howards & Sons, Ltd., Ilford, nr. London, state that, from March 1, the distribution to wholesalers of Quinisan tablets will be by the company direct and not, as at present, through a distributing agent.

Sole Agents in Eire.—Evans Medical Supplies (Ireland), Ltd., Distillery Road, Dublin, have been appointed sole agents in Eire for Kaycee hypodermic syringes, manufactured by Kenneth Castiglione, Ltd., Quadrant Works, Manor Park Crescent, Edgware, Middlesex.

Tax-free Packs.—British Chemicals & Biologicals, Ltd., 43 Regent Street, Loughborough, have received approval by the Commissioners of Customs and Excise for the issue of the 100, 250 and 1,000 sizes of B.V.U. tablets (Genatosan) as dispensing packs, free of purchase tax.

Adhesive Dressings.—Johnson & Johnson (Great Britain), Ltd., Slough, Bucks, and Gargrave, draw attention on another page to their Band-Aid, elastic, for minor wounds on joints and awkward angles, and Band-Aid, waterproof, for extra protection against water, oils, acids and grease.

Wrongly Indexed.—An announcement by Carnegie Bros (1949), Ltd., Welwyn Garden City (C. & D., February 18, p. 15) should have been mentioned under that title in the Index to Advertisers, and not as given. Two further announcements by the -"Carnegie of Welwyn" group of companies appear on other pages of this week's issue.

Sedative Expectorant. — Sharp & Dohme, Ltd., Hoddesdon, Herts, draw attention to their sedative expectorant: syrup Sedamyn. Each fluid oz. of the mixture contains gr. ½ codeine phosphate, gr. 3 squill, gr. 30 wild cherry bark, and gr. 1/10 menthol, with glycerin, dilute phosphoric acid and syrup of tolu. It is supplied in bottles of 4 and 16 fl. oz.

Plastic Denture Bath.—The Barclay denture bath, introduced by Barclay & Sons, Ltd., 95 Farringdon Street, London, E.C.4, has a streamlined ventilated lid of exclusive design, "with no crevices to harbour soapy deposits." The bath is available in four pastel shades, in attractive sales outers of six.

Sanitary Towels.—CHAPPELL, ALLEN & Co., Ltd., 87 New Bond Street, London, W.1, are the manufacturers and suppliers of the Camelia soluble sanitary towels.—Jason & Stuart Products, Ltd., Plane Street, Oldham, Lancs, are manufacturers of the Marie, Debusan and Solouise brands of sanitary towels. All have knitted covers and looped ends. The Marie and Debusan varieties are of bleached cotton wool; the Solouise is of the soluble type.

Squill "Mouse Crumbs." — Parisek, Ltd., 17 Victoria Street, London, S.W.1, have introduced a new larger size of Ratoids "mouse-crumbs." The new pack results from criticisms of the company's showcard as occupying too much counter or window display space. The dimensions of a new showcard are 10 in. high x 6 in. wide. The new pack displays a packet of Ratoids biscuits and a carton of "mouse crumbs."

New Strengths.—To meet a growing demand for preparations containing larger quantities of vitamin E, The British Drug Houses, Ltd., Graham Street, City Road, London, London, N.I, have replaced the previous 6-mgm. and 30-mgm. packs of Phytoferol capsules with new strengths containing the biological equivalents of 10 mgm. and 50 mgm. dl-∝-tocopherol at unchanged prices. Vitamin C, B.D.H, for injection, has been introduced in ampoules containing 1 gm. ascorbic acid in 10 mils of solution.

Technical Literature Exhibition.—Imperial Chemical Industries, Ltd., London, are re-staging in a larger and more popular form at the Academy Cinema Exhibition Hall, Oxford Street, W.1 (nr. Oxford Circus) from March 1-17 inclusive (except Sunday), the exhibition of technical literature held in London in July 1949. The exhibition will, taking a recent discovery as a model, trace the production of literature describing the product in question from the original entries in a scientist's laboratory notebook to the printing press.

Budget Reminder.—Clinical Products, Ltd., Richmond, Surrey, remind chemists that in the event of any reduction or remission of purchase tax in the Budget in April they will indemnify against possible losses by supplying any of the company's preparations free of charge to the value of the purchase tax loss, if any. Claim forms will be published in the April I issue of THE CHEMIST AND DRUGGIST. The sole distributors for the company in the United Kingdom are Moore Medicinal Products, Ltd., 64 Gloucester Place, London, W.I., and I Queen's Square, Aberdeen.

Penicillin Price Reductions. — Makers and distributors of penicillin announce price reductions from February 27 in crystalline penicillin G and in the calcium salt of penicillin, bringing them to the same levels as the present prices of amorphous ("coloured") penicillin sodium salt. On the same date reductions take effect in the prices of the procaine penicillin G oily injections of Boots Pure Drug Co., Ltd., Station Street, Nottingham, the Tabloid penicillin lozenge (tube of twenty) and Wellcome procaine penicillin oily injection of Burroughs Wellcome & Co., 183 Euston Road, London, N.W.I; and the Prolopen (combined penicillin Goily injection) and procaine penicillin Goily injection) and procaine penicillin Goily injection of Glaxo Laboratories, Ltd., Greenford, Middlesex.

Price Changes.—BURROUGHS WELLCOME & Co., 183 Euston Road, London, N.W.1, have reduced the prices of Tabloid and Wellcome brands sulphaguanidine.—Chese-BROUGH MANUFACTURING Co., LTD., Victoria Road, Willesden, London, N.W.10, announce on another page the prices of Vaseline brand preparations in operation from March 1.—MAY & BAKER, LTD., Dagenham, announce new prices, in operation immediately, for Vinesthene ampoules and V.A.M. (4-oz. bottle).—ROCHE PRODUCTS, LTD., Broadwater Road, Welwyn Garden City, Herts, announce that the trade and retail prices of Redoxon are being reduced on March 1; details are given on another page.—Roussel Labora-Tories, Ltd., 4 Golden Square, London, W.I, announce that the price of their Bactylan tablets (P.A.S.) was reduced on February 20. Orders for Roussel products should be sent to that address.—THOMP-SON & CAPPER WHOLESALE, LTD., Speke Hall Road, Liverpool, 19, state that the prices of all homoeopathic medicines have been advanced.

Proprietary Articles Trade Association

Additions to Protected List (Part 1).—Allied Laboratories, Ltd., Dispensing packs only (exempt from tax) Schedule 4 poisons: Soporal-R, forty tablets, 48s. doz.; 250 tablets, 270s. doz.; 1,000 tablets 960s. doz. (nominal retail selling prices, 6s., 33s. 9d., and 120s.).

Anglo American Pharmaceutical Co., Ltd., Tubelette menthol and wintergreen cream, tube, 1-oz. 9s. doz., tax 33\frac{1}{3} per cent., inclusive retail price, 1s. 5\frac{1}{2}d.; 5-oz., 36s. doz., tax 33\frac{1}{3} per cent., i.r.p., 5s.

Benbow's Dog Mixture, Co., Ltd., Benbow's dog mixture, 1-pint, 100s. doz., tax

331 per cent., i.r.p. 14s. 2d.

C. E. Fulford, Ltd., Zam-buk medicinal cream, 9s. doz., tax $33\frac{1}{3}$ per cent., i.r.p. 1s. 3d.; ointment, 7s. 3d. doz., tax $33\frac{1}{3}$ per cent., i.r.p. 1s.; Peps tablets, 7s. 3d. doz., tax $33\frac{1}{3}$ per cent., i.r.p. 1s.

Genatosan, Ltd. (agents: British Chemicals & Biologicals, Ltd.), Travikalm, tube of ten, 10s. doz., tax $33\frac{1}{3}$ per cent., i.r.p. 1s. 6d. Genalax, $2\frac{1}{2}$ -oz., 16s. doz., tax $33\frac{1}{3}$ per cent., i.r.p. 2s. 11d.; 6-oz., 36s. doz., tax $33\frac{1}{3}$ per cent., i.r.p. 5s. 6d. T.E.D. cough linctus, $2\frac{1}{2}$ -fl.-oz., 14s. doz., tax $33\frac{1}{3}$ per cent., i.r.p. 2s. 2d.; 6-fl.-oz., 26s. doz., tax $33\frac{1}{3}$ per cent., i.r.p. 4s.

Glaxo Laboratories, Ltd., Cytamen ampoules, 6 x 1 c.c., 108s. doz., 12s.; Pyelosil ampoules, 35 per cent., 1 x 20 c.c., 72s. doz., 8s.; 35 per cent., 5 x 20 c.c., 36os. doz., 4os.; 50 per cent., 1 x 20 c.c., 9os. doz., 10s.; 50 per cent., 5 x 20 c.c., 45os. doz., 50s.; 70 per cent., 1 x 20 c.c., 126s. doz., 14s.; 70 per cent., 1 x 50 c.c., 288s. doz., 32s. (all exempt).

FIFTY YEARS AGO Advice to Students

(From the C. & D., February 24, 1900)
WAKE! lest the Dreaded Portal soon you'll see
For ever closed on slim five-guinea Fee;
Nor waste in useless wailings precious Time,
But grind, that haply ploughed you may not be.

Grind! till the dawning dim and grey is near; Grind! till the sombre twilight disappear; Work till you know not whether Here is There, Or There is vanished, leaving nothing Here.

Take heart by reading of the Minor Rout; Scan well the Pass Percentage, working out Thy chances; then again thy soul prepare For deadly conflict with the Chukerout.

A book of Attfield, bandage round thy brow, A row of test-tubes, Florence flasks—and Thou Beside them, cussing in bewilderment, Ah! visions such as those have passed ere now,

BIRTH

LOUGHREY.—On December 2, 1949, to Mary (née McEvoy), the wife of James B. Loughrey, M.P.S.N.I., Whitewell, Belfast, of a son (Michael Desmond).

MARRIAGES

MACKINTOSH—MOERMAN.—At St. Andrew's Cathedral, Singapore, Malaya, on February 11, George Mackintosh, M.P.S., whose address in the register of chemists and druggists is 10 Aitken Street, Alexandra Park, Glasgow, to Eleanor Moerman, Orpington, Kent.

TIMOTHY—PRICE.—At Clwyd Street Welsh Calvinistic Methodist Chapel, Rhyl, recently, Owen David Timothy, M.P.S., The Castle Pharmacy, Rhuddlan, Flints, to Menna, only daughter of Mr. R. E. Price, M.P.S., The Pharmacy, 72 High Street, Rhyl.

DEATHS

COCHRANE.—At 394 York Road, Leeds, 9, on February 14, Mr. James Alison Cochrane, M.P.S., aged sixty-nine.

Cole.—On February 10, after a long illness, Mr. Claude Cole, M.P.S., 16 Sholing Road, Itchen, Southampton, formerly of Warren Pharmacy, Shirley, Southampton, aged seventy-seven.

CUMMINGS.—At his home, 20 Airlie Place, Dundee, Angus, on February 7, Mr. William Cummings, aged ninety-two. Mr. Cummings qualified as a chemist and druggist in 1886. His early training was re-ceived in the business of his father in Alloa, Kincardineshire, now carried on by a nephew. With his brother, the late Mr. Charles Cummings, he carried on the business of Cummings Bros., Reform Street, Dundee. Before settling in Dundee, Mr. Cummings was in business in Edinburgh. For twenty years he was secretary of the Forfarshire Chemists' Association, and in 1902 was local secretary to the British Pharmaceutical Conference at its Dundee meetings. He was a former member of the North British Branch (now the Scottish Department) of the Pharmaceutical Society. Mr. Cummings was unmarried.

DUNN.—On February 9, Mr. John Dunn, M.P.S., 14 Devons Road, Bow, London, E.3. Mr. Dunn qualified in 1920.

INNES.—On February 5, Mr. George Rome Innes, Victoria Villa, formerly of 30 High Street, Lossiemouth, Mr. Innes qualified as a chemist and druggist i 1900.

JOHNSON.—Recently, Mr. Ted Johnson M.P.S., 'Nairi Tal, Little Herbert Road Charlton Kings, Cheltenham, Mr. Johnson qualified in 1915.

Maley.—On May 16, 1949, Mr. Georg Joughin Maley, M.P.S.. Burleigh, Pe Road, Douglas, Isle of Man, Mr. Male qualified in 1889.

Newman.—At his home in North Lodon, on February 18, Mr. F. G. Newman manager of Condy & Mitchell, Ltd., 17 Vauxhall Bridge Road, London, S.W. aged seventy-four. Mr. Newman had be with the company for sixty years and one period represented it on the manufaturers' section of the Proprietary Articl Trade Association.

PALMER.—On February 18, Mr. Harv Palmer, Wakefield, Scratby, Great Yamouth, aged ninety. Mr. Palmer qualifias a chemist and druggist in 1883. I conducted for many years the business Stewart & Son, Market Place, Great Yamouth. He retired about 1932.

WILLS

Mr. R. RAWSTHORNE, 187 Warbre Drive, Blackpool, left £2,731 (£2,677 no

MR. J. A. DUNLOP, M.P.S., 270 Cathrine Street, Leicester, left £2,301 (£1,8 net).

Mr. T. H. Benger, Grey House, Fa mount Road, Cheltenham, Glos, forme chairman of Bengers, Ltd., and a direct of Fisons, Ltd., left £22,822 (£22,636 nt

Mr. C. R. Parsons, M.P.S., Sandrid Kithurst Lane, and Church Street, Sto ington, Sussex, left £14,037 (£13,039 no

MR. L. F. VAN ZWANENBERG, Parro Wood, Colemans Hatch, Sussex, forme of Eton Court, London, N.W.3. a marging director of Zwanenberg-Organ Ltd., Brettenham House, Lancaster Pla London, W.C.2, and chairman and marging director of Organon Laborator Ltd., left £48,764 (£23,035).

MR. R. G. EDWARDS, M.A., Ph.C., Priory Gardens, Clothorn Road, Didsbu Manchester, formerly the proprietor pharmacies at Chorlton-cum-Hardy a Fallowfield, a former president and vipresident of the Manchester Pharmaceucal Association, and a past-chairman the local branch, National Pharmaceuti Union, left £25,730 (£25,573 net).

AN AMERICAN APPRAISAL OF AUREOMYCIN

Few therapeutic agents have received more immediate and favourable acceptance in United States medical circles than aureomycin, the golden-coloured crystalline antibiotic discovered by Dr. Benjamin Duggar. Introduced in 1948, aureomycin has proved to have a range of activity overlapping that of penicillin and streptomycin, and extending into regions untouched by either.



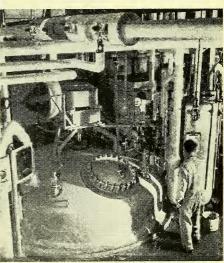
Dr. B. Duggar examines cultures of S. aureofaciens.

Like penicillin and streptomycin, it is produced by the growth of a mould. Streptomyces aureofaciens proved the safest and most effective organism of more than 3,400 strains examined. A deep-fermentation method of manufacture was quickly leveloped.

Early in vivo tests established that the drug was effective against a wide variety of Gram-negative, and Gram-positive bacteria, many of which resisted other antipiotics; the entire group of rickettsiæ and certain virus-like infections against which no effective weapon had previously been available. The success of aureomycin was so complete that it is now considered specific in the treatment of such diseases as African tick-bite fever, amæbiasis, bacterial and viral-like infections of the eye; bacteroides septicæmia, boutonneuse (or Mediterranean) fever, brucellosis, Grampositive infections (including those caused by streptococci, staphylococci, and pneumococci), Gram-negative infections (including those caused

ing those caused by the Coli-aerogenes group), granuloma inguinale, Hæmophilus influenzæ infections, infectious mononucleosis, lymphogranuloma venereum, peritonitis, pertussis, primary atypical pneumonia, psittacosis (parrot fever), Q fever, rickettsial pox, Rocky Mountain spotted fever, sinusitis, subacute bacterial endocarditis resistant to penicillin, tularæmia, and typhus. The most spectacular results have been achieved, perhaps, against primary atypical pneumonia, or the so-called "virus" pneumonia.

An important advantage of aureomycin is that it can be taken by mouth, thus relieving demands on nursing staffs to give frequent injections. It is relatively non-



7,200 gall. deep-fermentation tank in the aureomycin plant of Lederle Laboratories Division of the American Cyanamid Co., U.S.A. Small tank (right) contains anti-foaming agents.

toxic and reaction-causing impurities have been virtually eliminated. The development of resistance to aureomycin has not been demonstrated. Following oral administration or injection, the drug is readily absorbed and distributed throughout body fluids and tissues. Therapeutic concentrations can easily be maintained in the blood, spinal fluid, urine and milk. Aureomycin is capable also of diffusing through the brain lungs and placenta. Ointment of the antibiotic has been used with success in man and animals.—N.J.M.

PRODUCTION OF BOTANICALS IN HOLLAND

In Holland, where Dr. J. M. Rowson, Ph.C., stated recently (see C. & D., January 21, p. 83) that "an interesting development of the present decade is taking place' in an effort to gain a world market for home-produced drugs, the Centraal Bureau (National Agricultural Co-operative Wholesale Society) is one of two organisations responsible for marketing the crops. The following is an account of recent developments in that country. The cultivation of

medicinal and aromatic herbs is not new in Holland. Particularly in the Western part, "herb gardens' have been in existence for centuries. Though herb growing has, at one time or another, come in for special attention, corresponding with developments in the medical field, herb cultivation has never attained the status of a separate branch of horticulture. For that, climatic conditions have been largely responsible, for lack of sufficient summer sunshine and wet autumn weather is not conducive to drying

herbs in the open, and in this respect the advantage has been with the more temperate zones, such as the Balkans, the Southern part of Russia, the South of France, Italy, Spain, Portugal, etc. Those countries had added advantages of production, in that the herbs there grew wild, and a relatively lower standard of living obtained.

At the turn of the century a start was made in several countries at improving the crops. Emphasis was placed on the selection of plants and more careful treatment at harvest time. The tendency was marked in Germany, and to a lesser degree in Holland. Yet not until 1935 did the Dutch Government begin to take an interest in the cultivation of herbs. In that year Mr. C. M. v. d. Slikke, Government horticultural consultant at Leeuwarden, was commissioned to carry out investigations into the possibilities of herb cultivation in Holland. In his invesigations Mr. v. d. Slikke and his co-workers paid special attention to raising the percentage of active constituents in the various crops, and to the effect of the drying temperature or their preservation. Investigations have since been regularly carried out at the Experimental Station, Buitenpost, Friesland

at first in collabora tion with Professor D. Graaf, Utrech University, and later with Professo Van Os, Gröninger University. Never theless, the exten of cultivation re

mained limited. The end of th 1939-45 war sav the almost com plete breakdown o the internationa herb trade, mainl owing to the elim ination of Ger many, which unti then had held a almost complet Th monopoly. moment seeme opportune to ex pand cultivation i Holland. Invest gations had progressed sufficientl for high - grad

seeds and plants to have become available and an adequate number of experts had bee trained to advise and assist growers. Wit high-quality propagating stock, and th known experience and skill of Dutch farn ers, there were good prospects of succes The cultivation of medicinal plants an culinary herbs is particularly suitable for smallholdings and market gardens, which there are now about 350 in Holland The number, moreover, is increasing.

Some difficulties were encountered in the purchase of the necessary drying installa tions, developed according to modern pril ciples, on account of the high capital ou lay involved. The difficulties were final solved by arranging for the herbs to b grown and dried on a co-operative basi Co-operative herb-growers' organisation



Drying plant at Doornspyk

were set up, each of which acquired the necessary drying facilities. There are to-lay three such installations in operation, one at Westergeest, Friesland, another at Doornspyk, Gelderland, and a third at Veghel, North Brabant. One advantage of the system of drying the crops on a coperative basis is that large parcels of drugs of identical quality are obtained. The three co-operatives use the same system of drying, and operate on exactly identical nethods. The sale, too, is organised on a co-operative basis. It is entrusted to the wo large Dutch agricultural co-operative wholesale societies: Centraal Bureau, 100 Haringvliet, Rotterdam, and C.I.V., 20 Eendrachtsweg, Rotterdam.

Seeds and plants are produced at the experimental station at Buitenpost. Each co-operative has an experimental station of

its own, at which experiments are conducted on crops most suited to the district. The Netherlands Government Horticultural Intelligence Service gives advice and support to the growers during the period of cultivation, and the products presented for drying must come up to standard requirements or they are rejected. Tests on the products for active constituents carried out under the supervision of Professor Van Os, and pressure has been brought to bear on the Government to make export subject to legal requirements.

America is one of the main customers for Dutch herbs and medicinal plants, though Britain, Sweden, Norway, Denmark, Finland and Belgium all figure on the export market list, Exports in 1949 were valued at 50,000 guilders, and sales on the home

market reached 75,000 guilders.

NEW BOOKS

Sutheim. $8\frac{1}{2} \times 5\frac{1}{2}$ in. Pp. 260. 21s. Chemical Publishing Co., Inc., Brooklyn, New York (in Britain, Chapman & Hall, 37 Resear Street, London, W.C.2). As an Introduction to Emulsions.—G. Μ. ntroductory course for students, the book s given a practical value by the inclusion of up to twenty questions at the end of each chapter. For technologists, greater nterest may lie in a chapter on applicaions; which deals with the significance of emulsions in adhesives, cosmetics, detergents, insecticidal sprays, paints and other products (but not medicinal preparations). A twelve-page list of (American) emulsiying agents and a bibliography (with 159 references) and glossary are included. The book contains twenty-two illustrations.

A Life of John Keats .- Dorothy Hewlett. 9 x 6 in. Pp. 408. 25s. Hurst & Blackett, Ltd., Stratford Place, London, W.I. A biographer of John Keats the poet might have been pardoned for paying no attention to John Keats the apothecary's apprentice. Instead, the author deals faithfully with his being bound to Thomas Hammond, surgeon and apothe-cary and, citing his "known integrity of character" as contra-indicating any neglect of duties, discounts a fellow-apprentice's description of Keats as "an idle loafing fellow, always quoting poetry." At all events, after breaking his apprenticeship he remained sufficiently wedded to medicine to enter Guy's Hospital to train as an apothecary in the joint medical school of Guy's and St. Thomas's, duly emerging in 1816 with certificate to practise. How far his medical training influenced his verse must be left to a study of the poems—and of Miss Hewlett's book.

Latin for Pharmaceutical Students .-J. W. Cooper and A. C. McLaren. 81 x 5½ in. Pp. 115. 8s. 6d. Sir Isaac Pitman & Sons, Ltd. Parker Street, Kingsway, London, W.C.2. Described as a six months' course, the book-now in its fifth edition -covers the essential minimum of grammar (omitting, for example, the vocative case not encountered in pharmaceutical Latin), and presents it in the form of phrases such as might be encountered on prescription. In this aim it succeeds very well. Additions and alterations in official nomenclature as exemplified in the British Pharmacopœia, 1948, have been incorporated, though there seems room for a special chapter on pharmacopæial Latin as distinct from prescription Latin-to explain, for example, the distinction between a nominative followed by "pulverat.", and "pulvis" followed by a genitive. In looking for some note on this subject the reviewer found only "of powdered boric acid" rendered, rather surprisingly, as "acidi borici pulverisati"—a word not included in the excellent vocabulary, where "pow-dered" is, as one would expect, "pul-veratus,-a,-um." Pharmacists well versed in Latin grammar may yet find the book useful for reference because it gives in its vocabulary the Latin forms (and therefore the genders) of many newer compounds nikethamide and mercurochrome which are often unfamiliar.

JOINT PRICING COMMITTEE'S REPORT

The report of the Joint Pricing Committee for England, just issued, states that when the Committee was formed and took over the responsibility of pricing the nation's prescriptions, the staff available was inadequate to deal with the 60 millions N.H.I. prescriptions submitted annually. Some bureaux were up to date with the work, but others were as much as six months in arrear. Many were inadequately housed, making impossible any quick expansion of staff (one was housed in a single schoolroom, which had to be cleared every night

for evening classes).

With an immediate increase in the prescriptions under the new service, a considerable increase of staff, and additional suitable premises, became essential. The premises needed to be within reasonable distance of existing bureaux if large-scale resignations of trained staff were to be avoided. Despite great difficulties, additional accommodation has been obtained for the Durham, Bolton, Manchester, Liverpool, Smethwick, Birmingham and Leytonstone bureaux, while plans have been made for enlarging the Wakefield offices. Excellent premises found for the London bureau were lost owing to delay in obtaining approval from the Ministry of

Health, and new premises are still being

sought for this bureau and for the Preston, Sheffield and Bristol bureaux,

The total staff at July 5, 1948 was 564 (the number in each bureau varying from eighteen to eighty-seven). 597 new recruits have been obtained to date, but resignations numbered 350, leaving a net staff total of 811. The high wastage disclosed has been investigated, and the main causes have been found to be (1) the close and monotonous nature of the work; (2) lack of aptitude; and (3) the fact that higher salaries can be obtained in commerce. Every care is taken in selecting recruits, and the Committee has energetically sought better remuneration. Proposals by the Committee, acceptable to the Ministry, did not receive the approval of the Whitley Council, owing to the staff side desiring any variation to be applied to staffs of Executive Councils as well. Staffing at each bureau has been examined. In most cases the Committee had no hesitation in reappointing the existing officers, who have done yeoman work in very difficult circumstances. New superintendents have been appointed where necessary, and deputysuperintendents have been or are being

appointed where none existed before. Some bureaux, better situated than others in regard to accommodation and staff, have been able to deal more expeditiously with the work. Chemists in some parts of the country were therefore receiving payment considerably in advance of others in less fortunate areas. To obviate the anomaly, and to spread the work more evenly over all the bureaux, the areas attached to each have been reallocated. Considerable transfers of work from one bureau to another have also been made in an endeavour to ensure uniform completion of pricing for the country.

Proprietaries

Proprietary preparations ordered have increased enormously in number. Their prices have to be obtained either from the makers' lists or from a wholesale list, where such preparations are usually listed under a maker's name. In either case, the pricer has to be familiar with the maker's name before she can find the cost, which can only be learnt through long experience, making it difficult to increase quickly the number of staff capable of dealing with that class of prescription. To overcome the difficulty a comprehensive list of proprietary preparations in alphabetical order has been compiled, which it is proposed to issue to bureaux in a visible card index form if the initial expenditure, which is somewhat high, receives official approval.

The training of a pricer takes on the average a minimum of twelve months and when, as at present, large numbers of trainees have to be taught, trained person nel have to be taken off productive worl to teach them, and output is affected Further, while the trainee quickly reache a stage where she achieves quite a good output, her work is of doubtful accuracy and it must be checked by more experi enced staff. In one bureau, for example where the number of trainees exceeds the number of trained pricers, the whole of the June pricing was completed in fou weeks, but checking took a further fort night. While, therefore, a large number o recruits is necessary, their training for a time reduces the output of the bureaux The training is aggravated by the numbe of trainees who leave after partial training and there is a limit to the number of trainees who can be absorbed at any given time. The majority of the recruits an

obtained at the end of the school year. When they do reach efficiency there is a marked reduction in the time taken to deal with the work. For example, the average time taken to deal with January prescriptions for the whole country was eleven weeks, for February seven weeks, March six-and-a-half weeks, April five-and-a-half weeks, May five-and-a-half weeks.

The difficulties have a marked bearing on the problem of opening new bureaux, since a nucleus of highly trained staff would need to be transferred to the new premises and would be lost to pricing for at least twelve months. Nevertheless, the Committee feels that the provision of one or two new bureaux is essential. With this object in view, excellent premises have been examined in certain areas, but, after lengthy negotiations, authority to secure them has not been obtained, chiefly on the score of expense. Additional accommodation is imperative to enable the Committee to obtain and train sufficient staff to perform its duties adequately. The whole of the equipment for pricing prescriptionspricing charts, ready reckoners, adding machines, etc., has been carefully reviewed with a view to improving efficiency, and a considerable amount of work has been done to unify the organisation and methods of the several bureaux, each of which in the past was a separate entity having its own methods. The Committee is satisfied that the complicated scale of dispensing fees at present in force has greatly reduced the output per pricer, and a plea is made for serious consideration by all concerned of a drastic simplification. For example, if the mixture fee were based on quantity instead of dosage, and the remaining fees reduced in number, the work could be speeded up.

To meet comments made recently in the pharmaceutical Press, it is mentioned that no trained pricer is engaged on statistical work, while the preparation of essential statistics required by the Ministry of Health has been reduced to a minimum. The Joint Pricing Committee is represented on the Working Party on Pricing, which is doing its utmost to devise speedier ways and means of pricing, with the object of bringing the work up to date as soon as possible. As a result of the deliberations of that body, pricing is now done to the nearest halfpenny instead of to the nearest tenth of a penny. That should result in a saving of time by reducing the amount of calculation necessary in many cases, but the system has not been in operation sufficiently long to judge the results. Every suggestion for speeding up the work, from whatever source it comes, is carefully examined. For years those most closely connected with the work have been trying, with but little success, to find new methods that would be speedier yet equitable to all concerned. As one method after another is tried the Committee becomes more convinced that a return to full pricing should be made so soon as practicable.

INQUESTS

Reaction to Injection. — Acute shock due to the injection of anti-tetanus serum was given as the cause of death of a fifteen-year-old boy by a pathologist at an inquest at Warrington, Lancs, recently. The serum had been administered to the boy as a normal procedure after he had been bitten by a dog. Deaths from reaction to the serum were rare, said the pathologist. A test on himself with the serum after injecting some of the dead boy's blood showed that the boy "had something in his blood which made him sensitive to anti-tetanus injections." A verdict of death from misadventure was returned.

Cocaine Sensitivity.—At an inquest at Bradford recently on a fifty-seven-year-old woman who died at the Bradford Royal Infirmary while undergoing an operation for the removal of a piece of nut from her lung, a surgeon stated that death was caused by cocaine sensitivity. The woman was given local anæsthetics, one of which was cocaine administered by spraying. The patient collapsed after the operation, and died about ten minutes later. The doctor told the coroner that cocaine sensitivity was rare and could be ascertained only by spraying and noting what happened. A verdict of accidental death was recorded in accordance with medical evidence.

Nitrite Mistaken for Emetic.—At an inquest at Nottingham recently it was stated that a seventeen-year-old girl had drunk a solution of sodium nitrite at the dye-works where she was employed, in mistake for an emetic of salt solution. She had died shortly afterwards at the Nottingham General Hospital. The bag from which the sodium nitrite had been taken was stored in a passage, and was labelled with a tie-on label. The coroner returned a verdict that the girl died from sodium nitrite poisoning accidently taken in error for salt and water. The jury added a rider that sodium nitrite should be put on the poisons list,



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Official organ of The Pharmaceutical Society of Ireland, The Pharmaceutical Society of Northern Ireland, The Chemists' and Druggists' Society of Ireland and of other Chemists' Societies in the Empire.

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Dangerous Drugs in Ampoules

THE question of "overage" in ampoules has revealed an acute state of disagreement between the Home Office (as the authority responsible for enforcing the Dangerous Drugs Regulations) and the medical profession.

Both authorities are correct in their contentions. Trouble began when the Home Office notified its licensees that ampoules containing D.D. injections must contain the amount specified on the label, i.e., a "1-c.c." ampoule should contain only I c.c. of solution. Consequently makers printed in their price list statements such as:—

Ampoules contain sufficient solution in excess of the stated volume to enable the full volume to be drawn into the syringe except solutions of Dangerous Drugs, ampoules of which must contain precisely the stated amount.

Medical practitioners were (and still are) thus faced with the dilemma of a deficiency in dosage of some 5 to 10 per cent., however carefully the solution was withdrawn from the ampoule, and the danger from "air-bubble" injection was greatly increased. Moreover, the effective dose is further reduced by the amount remaining in the syringe below the plunger. The resultant very real difficulties and dangers have been the subject of discussions between the Home Office and representatives of both the medical pharmaceutical authorities—without prospect of agreement. The British Pharmacopœia Commission considers that the question of "overage" is a subject for which it is statutorily responsible.

assistance of the Ministry of Health and the Pharmaceutical Society was sought to impress this view upon the Home Office, but without any measure of success. The Home Office has been adamant. Its attitude has been unyielding because a 10 per cent. difference between manufacture and consumption would completely nullify the value of its Dangerous Drug statistics, which are of vital importance under the International Conventions controlling the manufacture and distribution of narcotics.

The answer to the "overage" problem within the existing regulations is, nevertheless, a simple matter. Nothing prevents a manufacturer from filling 1.1 c.c. of solution into the nominal "1 c.c." ampoule, provided the proper amount is declared upon the label in accordance with D.D. requirements. For example:—

6 MORPHINE AMPOULES

I.I C.C.

Containing Morphine Hydrochloride solution, 3.25 per cent. w/v (gr. ½ in 1 c.c.). Total anhydrous Morphine gr. 2.5 in 6.6 c.c.

Such a label fully complies with the provisions of Dangerous Drugs Regulation 10 (marking of packages and bottles). It states the total amount of solution in each bottle and the percentage of drug contained in the solution (D.D. Reg. 10 (1) (b) (i).). It also sets out the amount of drug (solution) in each article and the number of articles in the package, as is necessary in the case of "tablets or other similar articles" such as ampoules (D.D. Reg. 10 (1) (b) (ii).). Finally, the package is plainly marked with the total amount of drug contained therein (D.D. Reg. 10 (1) (a).) in a way that does not vitiate the records so essential to D.D. control.

Paper Chromatography Analysis

Paper chromatography, a simple method of separating and identifying minute quantities of substances, has in the past two years found applications in a fast widening field. Indeed, a survey of its possibilities seems called for, and for that reason an article by Dr. Tudor Jones, a pioneer of the method (p. 247), should, with a second

article to follow, perform a timely and valuable function for chemists and others.

The method has proved of special value in the study of amino acids, for which it was devised, but pharmaceutical applications have hitherto been few. Recently, however, its usefulness has been applied in the fields of antibiotics, vitamins, alkaloids, hormones (including hormones associated with the adrenal cortex), the study of photosynthesis, etc. A previously quoted remark of the chairman of the British Pharmaceutical Conference, 1949 (where Drs. Tudor Jones and Foster and colleagues contributed a paper on the application of the method to the separation of ergot alkaloids) that chromatography is "rearing its head in pharmaceutical research," deserves reiteration. made and the future is been full of possibilities for the application of the process to pharmaceutical and allied problems.

A Simple Process

Among the outstanding advantages of the method are simplicity, specificity, and ease of application to quantitative work. These alone suggest the important rôle that paper chromatography may play in estimating products now tested biologically. While much theoretical work has been done since paper chromatography was first elaborated from chromatography on silica gel, the method has not changed fundamentally. Much remains to be learned, however, and, as Dr. Jones points out, there is a field of urgent investigation into solvent systems for use with waterinsoluble compounds, which include many substances of pharmaceutical interest.

Other investigators, notably at the Chemical Research Laboratory, Teddington, are progressing favourably with chromatography in the inorganic field. The method has proved particularly successful for separating metals in groups difficult to deal with by conventional methods (e.g., for separating the platinum metals from one another; and calcium, strontium and barium from one another). Already a method of separating some forty-four metallic ions and acid radicles has been devised, and is at present in the press.

High Exports in January

United Kingdom exports in Januar reached a record total of £175.9 millions some £15.5 millions higher than the previous highest total reached in Novembe 1949, and £16.7 millions above the January 1949 value. Imports also show an ir crease amounting to £201.2 millions, whil re-exports were approximately £5.8 millions. The excess of imports (valued c.i.f over total exports (valued f.o.b.) fell t £19.5 millions, a figure which was abou 45 per cent. below the monthly average for 1949 although only 7 per cent. unde the average for the first three months of that year.

Exports of products of the "Chemicals group during January were valued at £7. millions, an increase of £0.9 millions of the figures for the last month of 194. The January total compared with that of the corresponding month of 1949 was however, £0.3 millions lower, the declir in value being due entirely to a shar

fall in shipments to India.

Exports of medicines reached a total £1,756,256, the highest value since the peak recorded in May 1949. Proprietar medicines exported were valued £419,719, a higher figure than in ar month of the second half, but £32,94 less than in the corresponding month 1949. Commonwealth markets (with the exception of India) took more medicin products than a year ago, while exports the Scandinavian countries showed an a preciable increase. Of individual product 266,161 lb. of aspirin were exported wi value of £64,754 (January 194 £69,062); insulin exports were valued £41,744 (£49,366) and penicillin £273,273 (£151,157). Shipments of oir ments and liniments shipped were wor £72,794 (£66,175) while exports of qu nine totalled £43,738 (£62,469). fectants, insecticides, weedkillers, shee dips, etc., exported were valued £211,395 compared with £235,539 in t corresponding month of 1949. Perfume and toilet preparations (excluding spiri essential oils and soaps) exported reach a total of £294,872 against £298,425 the previous month and £345,367 January 1949.

PAPER CHROMATOGRAPHY

By Dr. Tudor S. G. Jones

(Chemical Division, Wellcome Research Laboratories, Beckenham, Kent)

1.—General Considerations

APER chromatography is the name for the method by which two or more substances are separated on the inface of filter paper by irrigation by one intures have been separated into their paper have been separated into their paper and immersing one edge in ater, when the ascent of the water by apillary action succeeds in separating the paper and immersing one edge in ater, when the ascent of the water by apillary action succeeds in separating the paper and immersing one edge in ater, when the ascent of the water by apillary action succeeds in separating the paper action succeeds in separating the paper by Schönbein 1 1861, but is not cluded in the term paper chromatography.

he Process is Developed

Paper chromatography was first deribed in 1943 for the separation of aminocids by Consden, Gordon and Martin², ho worked at the Wool Industries Re-earch Association Laboratories. Their pparatus was simple-a drain-pipe closed t the top with a ground-on glass plate, anding in a bowl of water and carrying glass trough resting on the customary dge. A strip of filter paper was placed ith one short edge weighted in the trough nd hanging vertically. A small volume 0.005 mil) of the solution containing the mino-acids was pipetted on to the filter aper at a point just below the edge of the ough. A solvent (an organic solvent turated with water) was placed in the ough and the atmosphere in the drainipe was kept saturated with its vapours. he solvent percolated over the paper by apillary action and gravitation, and, after suitable time, the paper was removed om the enclosure, dried in the air or in n oven, and sprayed with a suitable colourprming reagent. For amino-acids, trietohydrindene hydrate, commonly called inhydrin, dissolved in a volatile organic plyent, was described as a suitable reagent. t gives, on warming, suitably intense olours with quantities of amino-acids and eptides of the order of micrograms. The ploured spots were of a hue depending n the ph of the paper but, in general, ere bluish or reddish purple for most mino-acids, yellow for proline, and orange or hydroxyproline. After the workers had arried out this very simple procedure, ney found that amino-acids in admixture ad separated into discrete spots, some

wholly, others partially. Under standard conditions, the procedure was very nearly reproducible in the distance the aminoacids moved on the paper and, more particularly, in the order in which they were found. By preparing standard chromato-grams from known mixtures, or adding one or more known amino-acids to the unknown mixture, some score of amino-acids could be recognised, and an estimate of their relative concentrations made. This simple technique found immediate application in the analysis of protein hydrolysate. To increase still further the separation of the large number of amino-acids usually to be dealt with, the process was elaborated to the so-called two dimensional method, as follows: -An amount of amino-acid mixture of the order of o.1 mgm, was placed near one upper corner of a rectangular sheet of filter paper, 22 in. x 18 in., supported with one edge in a long horizontal trough. The whole was enclosed in an airtight box as described for the strip, and a chromatogram developed with a suitable solvent, along one vertical edge. The paper was dried and this edge now placed in the trough with a second solvent. After development, the paper was again dried and sprayed with ninhydrin. The components of the mixture were then found to be distributed over the paper in a pattern characteristic of the amino-acids present when the conditions of solvent, paper, temperature and time of running were fixed. These two methods were demonstrated to the Biochemical Society in 1943 and published in 1944. Since then numerous papers have dealt with the applications of the methods to similar problems. The extension of the methods to the separation of mixtures of other classes of compound was not long delayed, the explanation of the underlying mechanism, given by the orginators of the method, providing the clues for the choice of suitable solvents and other conditions. Thus the method has already been applied to the separation of sugars, dyes, purines and pyrimidines, steroids, fatty acids, inorganic ions, synthetic drugs and even peptides and proteins.

A Stroke of Genius

It is of considerable interest to trace the conditions under which the method was discovered. As mentioned already, the

method was invented for the analysis of mixtures of amino-acids, the separation, detection and determination of the neutral amino-acids constituting one of the most of biochemical problems. Countercurrent liquid-liquid extraction had been used by Martin for the separation of fatty acids and other substances of biochemical interest. Synge had shown that the distribution co-efficients of acetylated amino-acids between organic solvents and water were sufficiently different for use in a countercurrent train. Such a train was devised by Martin and Synge³ and, although effective, the apparatus was rather complicated and its operation a skilled performance. By nothing short of a stroke of genius, these workers devised their partition chromatogram4 in which one phase in the countercurrent train is stationary and consists of silica gel packed uniformly in a column and containing up to 80 per cent of water with an indicator. This column had the appearance of being poured from a dry powder. The second phase flowed over the silica gel, and consisted of an organic solvent saturated with water. A mixture of acetyl-amino-acids placed on top of the column was found, after development, to have separated, some into zones of single amino-acids and others into groups. Their progress down the column could be followed by observation of the indicator.

The substitution of cellulose in the form of paper for the silica gel enabled the free amino-acids to be separated and completed the development of the central idea, leading to the method already described.

Technique

Despite many claims to the contrary, no fundamental changes have taken place, either in procedure or apparatus, since the method was first described. A number of descriptions of readily constructed apparatus, some of which is available commercially, have been published. For some readily separated systems, the method of upward flow, in which the lower edge of a vertical sheet or strip of paper is immersed in the solvent, has achieved popularity, particularly in America. It has advantages for work on a minute scale and for the exploration of solvent systems. Its disadvantage is that the capillary rise is limited for a given solvent, whereas in the descending flow method the solvent may be allowed to flow off the lower edge until the equivalent of several paper lengths has passed over the material to be separated. Indeed,

it has been claimed that better separation of some mixtures is achieved by using a solvent in which the material to be separated moves but slowly and allowing the chromatogram to flow for a prolonged period. When the solvent flow is limited so that the front is confined within the length of paper, the positions of the separated spots are specified by their R_F values. which are the ratios of the distances travelled by the solvents to those of the solvent fronts. The R_F value for a given solute in a given solvent system under given conditions is functionally related to the partition co-efficient of the solute between the solvents present. This is taken as evidence that the main mechanism underlying the process of paper chromatography is one of partition between the solvent flowing over the paper and the water which untreated filter paper invariably holds. That other mechanisms are simultaneously in operation is not to be doubted, e.g., simple absorption of the material on the fibres o the paper, or on non-cellulose component of the paper, may play a part,

Solvents

The solvents used in paper chromato graphy are usually those organic solvent which are immiscible with water. They are equilibriated with water or an acid o alkaline solution, or sometimes a saling buffer solution, at the temperature of the chromatographic apparatus before use. Thi is necessary since the solvent should no remove the water from the paper; neithe should free water be deposited on the pape surface. When the material to be chro matographed, e.g., urine, contains a high proportion of salt, the addition of a suit able salt mixture to the chromatographi solvent will avert the separation of water In the separation of amino-acids, pheno containing a trace of 8-hydroxyquinoline with or without the addition of ammoni to the chromatographic enclosure, an collidine (a tar distillation fraction) ar the commonest solvents. It is recom-mended that the latter, which is odorou expensive, of uncertain composition an requires prior purification, be replaced b butanol equilibriated with aqueous aceti acid solutions of concentration 10-25 pt cent. v/v. Other acids, e.g., formic, hydrochloric, p-toluenesulphonic, have been re commended for other purposes, and the addition of pyridine has its uses whe chromatographing acidic substances. Th use of entirely non-aqueous solvents ha been recommended for the separation (

eroids. In this case, the water is first isplaced from the paper by a polar solvent ich as propylene glycol, excess of the atter being removed by squeezing the aper between filter-paper sheets. pobile solvent then consists of the polar olvent dissolved in a non-polar solvent uch as toluene. An example will be given a later section, but the application is pentioned here because it is the author's pinion that there is the greatest need at he moment for solvent systems for dealing vith the great class of substances, including cany compounds of pharmaceutical interst, which are practically insoluble in vater. In ordinary paper chromatograms hey move with the solvent front.

The support used for paper chromatorams is the commonly available Whatman paper. For amino-acid separation, Whatman 4 paper is advantageous; a conrenient time of flow (overnight) is obtained when the solvent is butanol/acetic acid. Commercial, highly purified filter papers appear to offer no advantage, but for cerain applications, purification of the paper, by washing with dilute acetic acid ollowed by distilled water, is claimed to

rield improved results.

Recognition The recognition of material on the chromatogram is the subject for the ingenuity of the investigator. The properties of the paper support must be taken into account, since reagents which are too nighly destructive of paper are inadmissible. On the other hand, paper lends itself to the display of a colour reaction, with ennancement of sensitivity, and may even ake part, through its particular chemical composition, in some reactions. For example, the ninhydrin reaction, mentioned above, is fairly specific for a-amino-acids when carried out in solution, but on paper, a coloured reaction is given by a large variety of nitrogenous substances. Reagents may be classed as general and specific. The former are of the utmost value in detecting the various members of a given class on one piece of paper while the latter are of value in confirming the presence of a substance, already detected by its R_F value. A most valuable reagent is one, like ninhydrin, which is of general application and at the same time yields specific colours for certain members of the group.

Of physical methods of recognition, observations of colour, and the absorption of ultra-violet light are used. Many sub-

stances fluoresce strongly in ultra-violet light and this property enables the detection of most minute quantities of, e.g., the ergot alkaloids. The incorporation of radio-active isotopes in the material to be chromatographed enables radio-autographic Geiger-counting procedures to be applied to the separated components—a sensitive and accurate method under suitable conditions. By "printing" the chromatogram on the surface of a solid bacteriological medium such as agar, already seeded with a culture or its spores, substances inhibitory of their growth may be detected. If the medium is deficient in some factor necessary for the growth of the organism, this may be supplied by a spot on a chromatogram, giving a zone of growth on the agar.

Quantitative Determinations

While the great advantage of the paper chromatogram over other chromatographic methods is the ease with which the components of a complex mixture may be visualised, the possiblity of quantitative determination is an added attraction. The methods for quantitative work are very much bound up with those mentioned under the heading "Recognition." Since the simplicity of the process would be marred if complicated subsequent operations had to be carried out, the methods of choice are those which are applied to the chromatogram itself. They include estimation of the area of the spot, visual or photo-electric matching of a coloured spot, and radio-activity measurements where applicable. Other methods involve removal of either the substance which has been separated or the coloured reaction product by elution with a suitable solvent with subsequent colorimetric or other chemical determination. Elution is often accompanied by loss through destruction, or is incomplete. Inorganic substances may be separated from the paper by ashing.

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ECONOMICS OF THE FINE CHEMICAL INDUSTRY

A LECTURE on "The Economics of the Fine Chemical Industry" was given by Mr. J. Davidson Pratt, C.B.E. (director, Association of British Chemical Manufacturers), at a meeting of the fine chemicals group, Society of Chemical Industry, on February 10, Sir Jack Drummond, F.R.S. (chairman of the group), presiding.

Numbers Employed

Mr. Davidson Pratt gave statistics relating to the fine chemical industry as defined for Key Industry Duty purposes, and of the chemical industry as a whole, from the recently published report of the Association of British Chemical Manufacturers (C. & D., February 4, p. 148). Some ninety firms in Britain, he said, were primarily or substantially manufacturers of fine chemicals, using for that purpose £68 millions of capital. About 4,180 people were engaged in research and development within the industry, of whom 1,275 were pro-fessionally qualified. The work had cost £3.24 millions in 1948 (£8.5 millions for the whole chemical industry). With the completion of schemes for expansion already planned, the annual expenditure would be £4.4 millions for fine chemicals and £11.4 millions for the whole industry. Such figures compared favourably with relative figures for the United States, and probably surpassed those of any other industry in the United Kingdom remained, however, the gap between discovery and commercial application. There the U.S. had the advantage at present, but the British chemical industry recognised, and was seriously concerned to remedy, the deficiency.

Among the principal expansions planned in the industry (with the percentage increase over present output) were antibiotics (130); synthetic detergents (190); sulphonamides (65); insecticides (40); analytical reagents and research chemicals (110); sex hormones (40); antimalarials (50); barbiturates (165); plant hormones (125).

In the discussion which followed Mr. Pratt's address, the speaker said that a distinction should be drawn between expenditure on research as such and expenditure on development work, including pilot-plant work. The figures for the industry in the U.S. (4-6 per cent. of turnover) included development work. On research as such, a figure of 1 to 2 per

cent. was more usual, both in this country and in U.S.A. Dr. F. HARTLEY, who asked if the speaker was satisfied that there was no danger of over-expansion, was told that it was not possible for the Association to check whether the requirements of other industries had been over-estimated; it had been necessary to rely on the assessments of individual firms, with their more intimate knowledge of the prospects of the consumers of their products. Dr. V. Pet-ROS thought that U.S.A. would always have an advantage over this country in prosecuting particular research projects from its ability to throw into the work greater numbers of scientific and technical personnel. Mr. Pratt said he was not so pessimistic. Quality of work was at least as important as quantity in research effort discoveries were therefore just as likely to be made in the U.K. as in the U.S. DR F. BERGEL asked if the setting up of the National Research and Development Corporation would have repercussions on the economics of the industry. Mr. Pratt said that the N.R.D.C. was only in its early stages of policy formation. He understood that guidance would be sought from repre sentatives of industry and he thought it function could lead to industrial advances especially as they might provide the im petus for developing inventions that migh otherwise be neglected.

PHARMACEUTICAL SOCIETY STATISTICS

THE following figures are taken from thannual report for 1949 of the register of the Pharmaceutical Society:—

	1948	1949
Pharmaceutical chemists on register	1,866	1,97
Chemists and druggists on register	23,582	23.68
Superintendents to bodies corporate	2,835	2,85
Registrations as apprentice or	, , , ,	, ,
student	726	59
Premises registrations	14,656	14,84
(Branch shops	4,367	4.419
Premises of authorised sellers		171
inspected	12,018	12,34
Drug stores and other shops		1
inspected	6,071	5,69
Listed sellers visited on behalf of		
local authorities	2,554	2,21

Legal proceedings were taken agains five pharmacists, five corporate bodies wh are authorised sellers of poisons, eleve corporate bodies who are not authorise sellers and twenty-one unqualified trader

JOINT MEETING WITH SOCIETY OF ARTS

AN evening meeting of the Scottish Department of the Pharmaceutical Society held in Edinburgh on February 15, was described by MR. C. W. MAGFARLANE, Ph.C. (chairman, Scottish Department Executive), who presided, as a departure from a long-standing tradition in being a joint meeting with another society. No happier choice could have been made for the innovation than the Royal Scottish Society of Arts which, instituted in 1821, had a record of which it could be justly proud. The chairman then called upon MR. D. I. MACPIMIL, B.Sc., A.R.I.C., to give his address on "The Manufacture and Uses of Margarine," an abstract of which is given below.

Margarine consists of a semi-solid emulsion of oils and fats, with milk and other aqueous liquids, flavoured and plasticised to suit trade requirements. In principle the method of manufacture and processing follows the sequence preparation of suitable blends of oils/fats; preparation of the milk/liquids phase; emulsification of the blended oils/fats with the milk/liquids; cooling and/or crystallising the emulsion; and kneading and plasticising the cooled mass, followed by weighing and wrapping

the desired packs.

In the early days animal fats were used almost exclusively. Later, vegetable oils and fats were introduced, but any oil or fat without harmful physiological effects may in fact be used. An important development occurred in 1910 when the hydrogenation process, whereby liquid oils can be converted to fats of varying degrees of hardness, was applied in margarine manufacture. All oils and fats must be subjected to refining treatments (neutralisation, bleaching and deodorising).

Emulsification is carried out in vessels provided with agitators, under controlled temperature conditions (cooling is today by an ammonia-expansion process). The emulsion is fed on to the surface of the rotating drum and scraped off as solid flakes, which are kneaded and plasticised

by suitable machines.

Domestic margarine simulates butter closely, and in cooking and baking may be used to replace butter. Industrial types are made to meet bulk requirements.

In the discussion that followed the address a member of the audience said that synthetic fats all had an odd number of carbon atoms in the molecule, whereas

natural fats had even numbers. The synthetic fats were not wholly satisfactory

from the nutritive angle.

DR. EDKINS proposed a vote of thanks to the lecturer, which Mr. Campbell seconded. Mr. C. Y. Johnson, F.R.S.A. (president, Royal Scottish Society of Arts), expressed appreciation of the courtesy of the Scottish Department's invitation to his Society to take part in the joint meeting. From past experience, he had found that joint meetings usually proved most bene-ficial and instructive. One of the primary objects of his Society was to encourage invention and research in Scotland. They had trust funds to encourage and award such work. They also had a students' prize scheme open to the four Scottish universities and technical colleges in Scotland, for work of value to the community which the Royal Scottish Society of Arts considered worthy of award.

S. WALES PHARMACEUTICAL COMMITTEES

A MEETING of the Federation of Pharmaceutical Committees for South Wales and Monmouthshire was held in Swansea on February 9, when representatives of Pembrokes, Carmarthens, Glamorgan, Merthyr Tydfil, Swansea, Newport and Monmouthshire were present. Mr. W. O. Davies, Glamorgan, presided. Mr. D. Morris, Llanelly, was elected *Vice-chairman*, and Mr. J. M. Lewis was appointed Minuteclerk to assist the secretary (Mr. W. Parry Williams). Mr. W. Barclay Hough, Royal Gwent, was appointed Hospital Pharmacist Representative, and Mr. C. R. Dimond, mid-Glamorgan, his deputy. It was stated that, owing to representations by the Glamorgan Pharmaceutical Committee, the Ministry of Health had conceded the payment of a one-hour rota fee in " 1 and 2 chemist" areas up to November 30, 1949; after that date only half-hour duty would be paid for. It was alleged that certain health centre dispensaries in South Wales were having two sessions, a morning and evening, closing in the interim and remaining open after the rota hour. The view was expressed that delays in the pricing of scripts would become less following the change to more commodious premises by the Welsh Pricing Bureau. A recommendation to be forwarded to the National Pharmaceutical Union was to make a special bundle of prescriptions over £1 in value.

PHARMACEUTICAL SOCIETY OF IRELAND

MR. T. C. SCOTT (president) was in the chair at a meeting of the Council of the Pharmaceutical Society of Ireland on February 14. Other members present were Messrs. J. P. Kissane (vice-president), J. Gleeson, C. J. Cremen, C. D. O'Shea, M. Costello, M. Power, P. F. McGrath, T. B. O'Sullivan, R. Daly, N. A. McKane, Senator F. Loughman, J. A. O'Rourke, H. P. Corrigan, P. C. Cahill, P. A. Brady, J. J. Roche, G. C. O'Neill, A. Toher, and P. Brooke-Kelly.

A motion proposed by THE PRESIDENT that the thanks of the Council should be accorded to the Limerick Association for its generous donation to the Benevolent Fund (C. & D., February 18, p. 219) was seconded by MR. J. GLEESON and carried

unanimously.

Blood Donors Campaign

A letter from the Department of Justice intimated the Minister for Health's approval of the appointments of Professor Bayley-Butler as examiner in botany and materia medica for the Licence examination, and Mr. David Roice as examiner to the Assistants' examination. Professor Bayley-Butler wrote thanking the Council for his appointment. Mr. Thomas R. Bourke (outgoing examiner to the Assistants' examination) wrote thanking the Council for the help they had given him during his five years of service. It was reported that Royal College of Physicians had adopted the Council's recommendation that certain preparations containing strychnine should be placed on Part 1 of the Poison Schedule and had made a formal recommendation to that effect to the Department of Health. A letter was read from the National Blood Transfusion Association, asking for the Council's co-operation in a campaign to secure blood donors. Mr. A. Toher suggested that a poster in pharmacy windows drawing attention to the campaign would help, and the proposal was approved. The registrar was directed to write offering the Association help in every way, including a recommendation to members and licentiates to give it their fullest support.

A letter from the Irish Drug Association drew attention to the styling of their shops by certain pharmaceutical chemists as "The Gold Medal Pharmacy." The I.D.A. was of opinion that the practice was unprofessional and should be discouraged. A member mentioned a pharmacist who had

described himself to the public as "L.P.S.I (Hons.)." The President said that, irrespective of any examination distinction gained all pharmaceutical chemists should be the same before the law. Mr. M. Power thought that the Council should deal with those cases and with all unprofessional advertising. Mr. J. J. Roche suggested that the matter referred to in the letter should form the subject of an article or comment in the pharmaceutical Press and the Council endorsed the view Mr Roche had put forward.

It was unanimously agreed to donate £10 10s. in support of the Pharmaceutica Conference of the St. Vincent de Pau Society. Greetings were received from the presidents of La Asociacion Farmaceutica National de Cuba, and the Pharmaceutica

Council of Western Australia.

The following changes of address wernotified: James L. O'Byrne, M.P.S.I., to Sutton Pharmacy, Sutton, co. Dublin; and Thomas Dunne, L.P.S.I., to the New Kil mainham Dispensary, Vincent Street, Inchicore, Dublin. Preliminary registrations wernotified in respect of Mary P. Gaffney Martin J. Nolan, and Edmond O'Sullivan On the proposition of Mr. J. Gleeson seconded by Mr. Cahill, it was agree that the president and Mr. P. A. Bradshould be the Society's representatives of the National Health Council.

Examiner's Report

The examiner's report on the Januar Licence examination stated that, of th eighty-nine candidates examined thirty-si had been successful (thirteen honours), an the standard in compounding was th highest for two years, but chemistry wa poor. The examiners to the Assistants January examination reported that twenty one candidates out of thirty-six had passed "The standard was low," they said, "par ticularly in compounding. Only four c five of the successful candidates could b considered first-class." THE REGISTRA (Mr. James G. Coleman) reported on th deaths of Samuel Stuart Hall, L.P.S.I Donald Charles McDougall, L.P.S.I., an Hubert Sweeney, L.P.S.I. The reports (the Law and Schools Committees were sub mitted and approved. The report of th Education Committee, which was also ar proved, embodied a detailed report on th conference with counsel and the law ac viser, held on January 27, at which th legal changes consequent upon the comin to operation of the Society's new educaon scheme were considered. It was greed at the conference that the first step be taken should be the repeal of those ections of the 1890 Act creating druggists, and the holding of examinations for regisred druggists. Following that repeal, prosion would be made for the holding of modified examination for existing regisred druggists. Counsel undertook to preure a draft of the proposals to be prented to the Minister.

otions for Ministerial Approval

Notices of motion in the name of the esident, covering the matter of reciproty with other bodies and the election of aminers were adopted; they are to go the Minister for approval. In reply to question from Mr. McKane on the appointment at the December Council meetg of an examiner to the Assistants' examation, THE PRESIDENT stated that the ajority of the Council were in favour of the candidate chosen and no purpose

would have been served by deferring the appointment to the January meeting. The President and other members agreed that in future no appointments should be made at December meetings because several country members found it difficult to be present at them.

Licence certificates of the following were signed and sealed: William J. Fegan, Brigid I. Hogan, James G. Jordan, John A. McGahan, Denis O'Leary, Sean K. Mulholland, William F. Sweeney, and Doreen M. Young. Messrs. Stanley J. Butler, Patrick S. Kenny, John Maher, Michael Moore, James L. O'Byrne, and Patrick J. Salmon, were elected members of the Society. The following were nominated for membership: Mrs. E. V. Browne, Dublin; Messrs. William J. Fegan, Dublin; James G. Jordan, Dublin; William F. Sweeney, Dublin; and Patrick Duffy, Waterville, co. Kerry.

At a meeting of the Benevolent Fund Committee a number of grants were passed

for payment.

HORMONES AND METABOLISM

a lecture to the Durham County Branch, narmaceutical Society, at Durham on Febary 2, Mr. Frederick H. Oliver, B.Sc., Pharm., Ph.C. (head of the pharmacy partment, Sunderland Technical Colge), took as his title "Hormones and arbohydrate Metabolism." The body was le to "burn" glucose at 37° C., he id, only because enzymes enabled retions to proceed more rapidly than were rmal at that temperature. Carbodrate entered the body and passed into e bloodstream as glucose. A little was bred as such in the tissue spaces, but most the excess was stored as glycogen in ter and muscle, or as fat and protein.

entrol of Equilibrium

The concentration of glucose in the blood as the main factor controlling equiliium. When blood sugar rose (after a eal), more glucose was stored. When the ood sugar level fell, glycogen was broken wn in the liver to compensate. Should ere be insufficient glycogen, glucose was herwise formed, so as to maintain the rel at about 100 mgm, per 100 mils. The enzymes controlling the rate of change are in turn influenced by hormones. Glygen was broken down, said the speaker, various stages, giving pyruvic acid. Inlin must accelerate the initial reaction by

which glucose entered metabolism and must activate the enzyme that made the reaction possible. In that way insulin allowed glucose to exert its effects in metabolism at lower levels than would otherwise be necessary. Interest had been added to the knowledge of hormones by the discovery of cortisone (compound E), a hormone influencing carbohydrate metabolism and causing dramatic remission of symptoms in rheumatoid arthritis. Commercial samples of insulin appeared to contain a factor that raised blood sugar and was still present when insulin activity of the sample had been destroyed. At one time adrenaline had been considered the main antagonist to insulin, but it had later been shown that removal of the pancreas and anterior pituitary from a dog had little or no effect on the blood-sugar level. It was clear, therefore, that a controlled bloodsugar level resulted from a balance between insulin and some hormone from the anterior lobe of pituitary. Mr. Oliver dealt briefly with the adrenal cortex and adrenaline, the thyroid and other hormones on carbohydrate metabolism.

Conditions in the Dominican Republic—A review of commercial conditions in the Dominican Republic is published by H.M. Stationery Office, price sixpence net.

MEDICAL ABSTRACTS

Whooping Cough Vaccination Trials .-Trials carried out during 1947 and 1948 in residential nurseries in London with combined diphtheria and pertussis antigen are recorded by Breen and others in the "Lancet" (1950.258.198). "A significant difference" is reported in the incidence of whooping cough between the vaccinated children and the controls. undesirable effects were noticed.

T.E.A.B. in Rheumatoid Arthritis .-Howell ("Lancet," 1950.258.204) gave injections of tetraethylammonium bromide on fifty-five occasions to patients with "painful exacerbations" of rheumatoid arthritis. Although there was no relief of pain on ten occasions (usually in cases with softened tissue lesions around the joints) there was on all other occasions partial or complete relief of pain, usually within one hour and lasting from five to 210 days according to the patient.

Suspected Dicophane Poisoning. -Though unable to ascribe the effects with certainty to dicophane, Campbell ("Lan-" 1949.257.1178) considers that extreme fatigue and prostration overtaking a Ministry of Agriculture demonstrator of the insecticide were probably toxic effects of the drug, since they accorded with previously recorded effects. Pathological and chemical tests on the patient were "strikingly normal" except for the finding of casts and red cells in the urine. He recommends periodical medical examination of persons working regularly with the compound.

A New Antibiotic.—A new antibiotic, Terramycin, which shows in vitro and in mice, in vivo, activity against Streptococcus hæmolyticus, Diplococcus pneumoniæ, Klebsiella pneumoniæ, and Salmonella ty-phosa, has been isolated by Finlay and colleagues ("Science," 1950.111.85), from a new actinomycete, Streptomyces rimosus, isolated from a soil sample. The antibi-otic is effective orally and by injection. Preliminary studies suggest that Terramycin has antirickettsial activity in the chick embryo, and inhibits the infection of the embryo with a PR 8 strain of influenza A virus. The antibiotic is amphoteric, and forms a crystalline hydrochloride and sodium salt. It is stable over long periods in aqueous solutions at pH values of 2 to 5 at room temperature. The research has been conducted in the laboratories of Chas. Pfizer & Co., Inc., Brooklyn, New York.

MISCELLANEOUS INQUIRIES Deodorising Solution.—G. C. S.—Th

following formula produces a deodorisin spray solution: --Pine needle oil ... Solution of formaldehyde

Acetone Isopropyl alcohol to ... 20 0 For use mix 1 oz. with a pint of water.

Transparent Hair-restorer.—S.D.M.transparent restorer may be made follows: --

Lead acetate 1 dr. Saturated solution of sodium hyposulphite... a sufficiency Glycerin 1 fl. oz. Alcohol (90 per cent.) ... 1 fl. oz. Rose water to 20 fl. oz.

To the lead salt dissolved in 2 oz. of wat add the solution of sodium hyposulphi until the precipitate formed is redissolve Continue to add half as much more hyp sulphite solution, then the rest of the i gredients.

Must it be labelled "Poison"?—P. -The question whether a children's cou syrup containing 5 per cent. syrup pru serot, must be regarded as subject the Poisons Regulations resolves itself in a question of fact. If the cough syrup compounded with an extract or syrup prunus serotina, then hydrocyanic acid present and the content must be declar as a Part I poison. If, on the other har the cough syrup is prepared direct for the powdered dried bark, then no hyd cyanic acid is present and the preparati may be labelled in terms of the cru drug.

Witch-hazel Snow.—H. D. C.—Witch hazel snow may be made to the following formula:--

Stearic acid... 2 OZ. Potassium carbonate 65 gr. Wool fat Liquid paraffin ... $\frac{1}{2}$ oz. Liquid paraffin Glycerin (by weight) ... 144 mi I OZ. Solution of hamamelis (by

weight) ... IO OZ. Distilled water (by weight) to 20 OZ. Dissolve the potassium carbonate in 6 of hot water and gradually add the so tion to a mixture of the stearic acid, w fat and liquid paraffin, previously mel together with the aid of gentle heat. vigorously for three or four minutes; the glycerin, previously mixed with solution of hamamelis and heated to 90 stir until cold and beat to a foam.

CORRESPONDENCE

carcity of Hypodermic Needles

Sir.—In accepting my order for some podermic needles, the suppliers stated at delivery could not be effected until er June. This puzzles me. Surely a steel ortage is not the reason, as I can purase all the razors, blades, nailfiles, comets and lipstick cases that I wish. Have a numbers of persons self-administering ections increased over the past tenurs, or are more injections being given the advent of N.H.S.? Could there any wastage in hospitals? Could not a mporary importation of foreign needles the situation? I would like to know real explanation so that I can explain diabetics and others why they cannot tain a needle (or a needle of the size by like) from their pharmacist.

King's Lynn. F. C. Bentley, M.P.S.

Responsibility for Policy Sir,—In recent correspondence in your umns about education and man-power ur correspondents criticise the Pharmaitical Society. It is only fair to say that Society is governed by an elected uncil which settles the policy. Members the Society are themselves really responle, and it is interesting to inquire how members come by their opinions. They not know the opinions and activities the candidates for the Council because debates there are surrounded by recy. Serious criticisms, even by memrs of the Council, appear to be rigorously ppressed. The result is that the rank d file are not familiar with the bearing any policy favoured by the Council. To n the support of the members for their ucational scheme, the leaders on the uncil borrowed the method of astute liticians, by "bribing" the electorate, t by offering, gratis, the title Pharmaitical Chemist to all and sundry, then ising a rise in salaries and in the values businesses by creating a shortage of armacists. Those who are academically nded should be encouraged, but why stroy the old qualification, that is so ich wanted now that dispensing is a fullhe job. The educational policy should be train competent dispensers, and the labus should be pruned of obsolete mat-Modern techniques should be taught. ch time could be saved if apprentice-p were to become optional. During a ig experience, I have seen apprenticeship

come a farce—a source of cheap labour,

chiefly for the stores. If the same time were spent at college, much better training could be given in a shorter time. The better type of young person would not be repelled from pharmacy by having to waste valuable time in shop drudgery. Members of the Society should wake up and put this matter right, in spite of the Council. If the Government decide to find dispensers they may do so outside the Society and then we may lose our dispensing.

PH.C.

ULSTER CHEMISTS' ASSOCIATION

At the February meeting of the Executive Committee of the Ulster Chemists' Assotiation, the president (Mr. J. Caldwell) in the chair, the secretary (Miss A. E. Strachan) was instructed to convey the Committee's sympathy to Mr. H. P. Crossin, who had met with an accident.

THE SECRETARY reported having written to a local newspaper correcting a suggestion circulated in the newspaper that the rota cards displayed by Belfast chemists did not set out the hours of attendance of chemists. In response to a request from a firm of manufacturers for action to prevent the numerous pilferages of goods in transit, the secretary was instructed to advise members on the correct method of signing for goods so that claims would be entertained. Mr. P. A. McKenzie, 13 Ardoyne Road. Belfast, was elected a member of the Association, and the following (approved at a previous meeting of the Associates' Committee) were elected Associates:-Pharmaceutical Chemists, Miss D. C. Davey, Mr. L. McCullagh; Assistants, Misses P. Black and E. R. Thompson; Apprentices, Miss A. Duddy and Mr. D. W. McMullan.

C.F. Representative Reappointed

The President reported on his attendance (with the secretary) at the Chemists Federation Council meeting and annual C.F. Luncheon held recently in London. It was agreed that the U.C.A. representative (Mr. Caldwell) should be appointed to serve on the Council for a period of two years ending January 1952. The President, in reply to a query, said that non-C.F. window display cards should be signed only after adding a clause "In accordance with C.F. conditions." Final arrangements were made for a whist drive in aid of the Northern Ireland Chemists' Benevolent Fund, to be held in the premises of the Pharmaceutical Society of Northern Ireland on March 15.

TRADE REPORT

Spot quotations for pharmaceutical chemicals represent the prices for wholesale quanties of standard quality. Prices of crude drugs and essential oils vary as to brand or grad

28 Essex Street, W.C.2, Feb. 22 Conditions in the markets for Pharma-CEUTICAL and FINE CHEMICALS remain much the same as in recent weeks. Demand for British fine chemical products continues on a satisfactory level, although there has been a seasonal falling-off in the home market. Price changes have been few during the past week—one maker has increased his rates for Potassium Nitrate by 5s. per cwt.; correspondingly higher prices are asked for SAL PRUNELLA. Business in CRUDE DRUGS has been small, the reduced volume of inquiry being attributed approaching General Election. Although Cape Aloes at origin is reported in short supply there has been an easing in the spot market with a number of holders quoting lower prices. STAR ANISE is dearer for shipment and spot supplies are now in small compass. High prices are understood to have been paid by American buyers of Portuguese Ergot and this market continues firm. A parcel of Hungarian ergot is offering in London, but otherwise the market is bare. Prices of Anatolian Liquorice root have risen. MENTHOL is quiet and steady. SHELLAC is a falling market. Dar-es-Salaam Bees-WAX is dearer on the spot and forward; supplies are short. In ESSENTIAL OLLS, English-distilled CLOVE has advanced by 1s. per lb., as a result of higher costs of 1s. per 10., as raw material. Bourbon Geranius nacrisen sharply. Many Synthetics and Isourbes are higher in price, notably

U.S. Drug and Chemical Report New York, February 17

THE PHARMACEUTICAL and FINE CHEMI-CALS market generally continues steady with few price movements. Sulphanila-MIDE is quoted at \$1.30 per lb. for 1,000-lb. lots of the U.S.P. powder; smaller quantities are quoted at prices up to \$1.50 per lb. In view of the lack of demand for seasonal products, the request for Aspirin Sodium salicylate is considered quite good. Demand for CRUDE DRUGS, both for the home market and for export, is on a disappointing level, although any increase in the volume of inquiry would probably result in higher prices. Cape Aloes is firmer for shipment. Supplies of KAMALA are difficult. SENEGA is an easier market, with quotations down to \$1.55; consumers are showing little interest in this root. Hydrastis is cheaper -some merchants are offering whole root at \$3.10 per lb. and it is understood that some parcels are failing to attract any interest at \$2.90. In the ESSENTIAL OILS market, demand has been rather small but prices generally are maintained. French Oils are showing considerable streng and high prices are asked for Bourbe GERANIUM. Italian LEMON has increas by 10 cents per lb. to \$2.85 and suppli offered by the source are small. Zanzib CLOVE is slightly easier with spot pric ranging from \$1.60 to \$2.20 per lb., a cording to holder.

Pharmaceutical Chemicals

ACETANILIDE. — Crystals are quoted from 2s. $1\frac{1}{2}$ d. to 2s. $6\frac{1}{2}$ d. per lb., powder from 2s. $2\frac{1}{2}$ d. to 2s. $7\frac{1}{2}$ d. per lb.

ADRENALINE.—B.P. is quoted from 3s. 3s. 6d. per gm. for natural and 2s. 2s. 6d. for synthetic; racemic, 2s. per g

p-Aminobenzole Acid. — Makers' pric are from 35s. to 38s. 6d. per lb. T Sodium salti is 37s. 6d. to 41s. per lb. Ammonium chloride, B.P. — Steat Makers quote 1-cwt, lots at 9½d. per lb.

AMPHETAMINE. — Quotations for Ba and Sulphate are from 115s. to 120s. I lb. d-Amphetamine is 26s. per oz.

ASCORBIC ACID.—1-kilo lots for the ho trade are now £16 10s. per kilo; 500-g £17 per kilo.

ATROPINE. — Steady. Makers' rates y oz. are: Alkaloid, 41s. 3d.; 4-oz., 40s. 9 25 oz., 40s. 3d. Sulphate, 32s. 9d.; 4 o 32s. 3d.; 25 oz., 31s. 9d.

Barium Sulphate (x-ray). — Prices a unchanged, 1 cwt., 1s. 3d. per lb. Schedu rates per lb. (containers in brackets), quantities between 28 lb. and 1 cwt. as follows: 1s. 8d. (1-lb.); 1s. 7d. (2-lb 1s. 6½d. (4-lb.); 1s. 5½d. (7-lb.); 1s. (14-lb.); 1s. 4d. (28-lb.).

BENZOCAINE. — Home-trade prices unchanged at from 50s. to 52s. per lb BETANAPHTHOL. — Makers quote pri

Betanaphthol. — Makers quote pri from 2s. 9½d. to 3s. 1½d. for B.P. qual packed in 28-lb. packages. Borax. — Rates for B.P. quality

Borax, — Rates for B.P. quality 1-ton lots and upwards are as follows Granular, £44; crystal, £46; powder, £ extra-fine powder, £48 per ton; in 1-c bags, carriage paid, Great Britain. S charges for small quantities are as lows:—Less than 1 ton but not less the 5 cwt., 1s. per cwt.; 3 cwt., 2s.; 1 cm 2s. to 5s.; less than 1 cwt., 5s. to 10s. cwt. more than above rates.

Boric acid. — Rates for B.P. qua in 1-ton lots and upwards are as follows Granular, £75 10s.; crystal, £81; powe £78 10s.; extra-fine powder, £80 11 small flake, £94 per ton; in 1-cwt, be carriage paid, Great Britain, Surchal for smaller quantities are as follows Less than 1 ton but not less than 5 c. 1s. per cwt.; 3 cwt., 2s.; 1 cwt., 3s, to 5 less than 1 cwt., 5s, to 10s, per cwt. m than above reduced rates.

Bromides .- Makers' rates in the United Bromides.—Makers rates in the United ingdom and Eire for Potassium, B.P. rrystal) and Sodium, B.P., are as folws:—5 ewt., 2s. 4d.; 1 cwt., 2s. 5d.; 3 lb., 2s. 11½d.; 14 lb., 3s. 2d.; 7 lb., 3d. per lb. The potassium salt in owder is 1½d. per lb. more than the foreing prices. Ammonium, B.P.C., is 1d. ir lb. more than the potassium and dium salts. Terms: Prices net, 1-cwt. ses or kegs charged: 28-lb. parcels free; neller containers charged extra. Schedule naller containers charged extra. Schedule antities may be made up of assorted lts down to 28 lb.

Butobarbitone. — Makers' prices for nall quantities are from 73s, per lb.

BUTYL CHLORAL HYDRATE. — Merchants e asking from 17s. 6d. to 20s. per lb., as quantity.

Chloral hydrate. — Current rates per for the home trade are: 1-cwt. lots, .; 56-lb., 4s. 2d.; 28-lb., 4s. 4d.

Chloramine.—B.P. grade is from 2s. 5d. 2s. 9d. per lb. and 98 per cent, technical 2s. $2\frac{1}{2}$ d. to 2s. 5d. per lb., according to antity.

CHOLESTEROL. — In 1-kilo lots, pure about 126s. per kilo; 75 per cent. is s. and 50 per cent., 80s. 3d. per kilo.

Chloroxylenol.—B.P. quality is quoted 5s. 6d. per lb. in 1-cwt. drums.

Chrysarobin. — Quotations are from s. to 35s. 9d. per lb.

CITRIC ACID, B.P. — Makers quote $5\frac{1}{2}$ d, per lb., less 5 per cent, for 1-cwt. s, delivered in the U.K.

EPHEDRINE.—Makers' rates per oz. are follows: Alkaloid: 1 oz., 11s. 9d.; oz., 11s. 6d.; 25 oz., 11s. 3d.; 50 oz., s.; 100 oz., 10s. 9d. Hydrochloride and LPHATE: 1 oz., 8s. 3d.; 16 oz., 8s.; 25, 7s. 9d.; 50 oz., 7s. 6d.; 100 oz., 7s. 3d. souted contracts may be booked for guaranteed. sorted contracts may be booked for quanies of not less than 100 oz. over six nths. Containers: 50 oz. or more, free;

oz. lots carriage paid.

MERCURY SALTS.—Current prices per lb. m makers are as follows:—Ammon-red, B.P., powder, Ss. 5d. (1 cwt.); mp, 8s. 3d. LODIDE (MERCUROUS), B.P.C., s. 3d. (28 lb.), IODIDE (MERCURIC), P., 16s. 9d. (1 cwt.), OXIDE (RED), P.C. and OXIDE (YELLOW), B.P. S. 10d. P.C. and OXIDE (YELLOW), B.P., 8s. 10d. cwt.), Perchloride, B.P., lump, 7s. 5d., d powder, 6s. 11d. (1 cwt.), Subloride, B.P., 8s. 4d. Sulphate (Merciri), B.P.C., 14s. Sulphide (Mercuric), s. (28 lb.), Sulphide (Vermillon), 3d. (1 cwt.), Mercury with Chalk, P., small lots, 5s. 2d.

METHYL IODIDE. — 1-cwt. lots are 25s. lb.; 28-lb., 27s. 6d.; 14 lb., 28s. 6d. ese prices have been ruling since shortly er the revaluation of sterling.

SULPHUR.—PRECIPITATED, B.P., in minim 10-20-cwt. lots, is quoted at 90s. per t., packed in free casks.

Crude Drugs

AGAR.-Kobé No. 1 afloat is quoted at from 9s. 3d. per lb., landed, duty paid; February-March shipment, 8s. 1½d. to 8s. 3d., c.i.f. Supplies on the spot are offered at 14s. 6d. per lb., duty paid.

Aloes.—Little demand, Cape is offered at from 115s, to 117s, 6d, per cwt., spot, little at origin, 110s, per cwt., c.i.f., nominal, Curação is quoted at from 220s, to 225s. per cwt., spot; forward, 215s., c.i.f.
Anise (star). — Dearer for shipment;

quotations are now at 167s. 6d. per cwt., c.i.f. Spot supplies are hard to find.

BALSAMS.—Canada on the spot is firm at 18s. per lb. Pará Copaiba is 8s. per lb., duty paid; 7s. 6d. in bond. San Salvador Peru is at from 6s. 6d, to 7s. per lb., duty paid. Tolu is from 19s. to 19s. 3d. per lb., spot; for shipment, 18s. 9d. to 19s., c.i.f., quoted.

Belladonna.—Imported root is offered at from 3s. 6d. to 4s. 3d. per lb., as to test; leaves are from 3s. 9d. to 4s. 6d. per lb., spot, duty paid.

CASCARILLA.—Business has been done in quills on the spot at 1s. 3d. per lb.; siftings are offering at 1s. per lb.

Cloves.—Zanzibar on the spot is from 1s. $5\frac{1}{2}$ d. per lb.; affoat, 1s. 5d.; February-March shipment, 1s. $5\frac{1}{4}$ d., c.i.f. Madagascar in bond is quoted at 1s. $5\frac{1}{2}$ d.

Cochineal.—Silver grey is quoted at 5s. per lb., spot; black, 5s. 6d.

Ergor.—Hungarian on the spot is offered at 23s. 6d. per lb. Portuguese is nominal on the spot; at origin prices are firmly held at 28s. 6d., c.i.f. Russian, spot, 25s. per lb., nominal.

Gentian.—French natural on the spot is quoted at 72s. 6d. per cwt.

GINGER.—African on the spot is offered at 345s, per cwt. February-April shipment, 315s., c.i.f., sellers. Jamaican, new-crop No. 3, is quoted at 360s. per cwt., spot; February-April, 322s. 6d., c.i.f.

Gum acacia.—Quiet. Kordofan cleaned sorts on the spot, offered at 86s. per cwt., spot London or Liverpool; February-March shipment, 80s., c.i.f. Bleached gum, 135s., spot. Talha is 50s. per cwt., on spot; shipment, 48s., c.i.f.

IPECACUANHA,—Quiet. Nicaraguan on the spot is offered at from 42s. to 42s. 6d. per lb.; April-May shipment, 38s, 6d., c.i.f. Colombian is quoted at 35s, per lb., spot; forward, 30s., c.i.f. No offers of Brazilian

Kamala.—Supplies to come forward are quoted at 3s. 3d. per lb., landed. Firmer.

Karaya. — Selected is offered at 290s. per cwt., spot; No. 1, 255s.; No. 2, 215s.; No. 3, 180s.

Lanolin.—B.P. anhydrous is £120 per ton; hydrous, £90. Superfine anhydrous is quoted at £126 per ton.

Liquorice,—Anatolian natural root on the spot is dearer at from 46s. 6d. to 50s. per cwt. Syrian natural is from 40s, to 45s., spot. Turkish block juice is quoted at from 160s. to 230s., duty paid, according to holder; Turkish stick is from 300s. duty paid. Italian stick is from 285s. to 475s. per cwt., duty paid, for druggists' grades.

Menthol.—Steady. Brazil on the spot is 86s, per lb., duty paid; in bond, 82s, 6d. Chinese, for February-March shipment, 85s, per lb., c.i.f.

Sarsaparilla.—Jamaican native red, on the spot, is offered at 2s. to 2s. 3d. per lb.; forward, 1s. 10d., c.i.f. Jamaican grey, 3s. 6d., spot.

SEEDS .- The Anise market is dearer for shipment, but spot prices remain unchanged. Turkish is quoted at 155s. per cwt., in bond, and 165s. per cwt., duty paid; Egyptian, 150s. per cwt., in bond, London, CARAWAY.—Dutch on spot is quiet at 122s. 6d. per cwt., duty paid, in London, CELERY.—Market remains firm. Indian quoted at 1s. 10d. per lb., spot London; French, now landing, is 250s. per cwt., CORIANDER.—In view of the duty paid. Coriander.—In view of the stock position of Morocco the spot price here has advanced to 105s, per cwt., duty paid, and 100s, per cwt., in bond; shipment is quoted at 96s, per cwt., c.i.f. London, CUMIN.—Market quiet and unchanged. don, CUMIN,—Market quiet and unchanged. Morocco, spot London, is 165s, per cwt., in bond, and 180s, per cwt., duty paid; Indian is 160s, per cwt., spot London or Liverpool. DILL.—Indian is quiet although firmly held at 62s. 6d. per cwt., spot London, and 57s. 6d. per cwt., c.i.f. FENNEL.—Market is quiet. Indian is now 75s., spot, and 67s. 6d. per cwt., c.i.f., for shipment. FENUGREEK —Market unchanged Morocco Fenugreek.—Market unchanged. Morocco is 57s. 6d. per cwt., duty paid in London, and 55s. per cwt. in Liverpool; Indian is 62s. 6d. per cwt., spot London.

Senega.—Spot quotations are unchanged at 11s. per lb.; for shipment, 11s. per lb.. c.i.f., quoted.

SENNA.—Tinnevelly leaves, spot, No. 1. from $9\frac{1}{2}$ d. to 11d. per lb.; No. 2, $7\frac{1}{2}$ d. to 8d.; No. 3, $6\frac{1}{2}$ d. per lb.; Tinnevelly pods, selected, nominal; ordinary hand-picked, 9d. to 1s.; manufacturing. 5½d. to 6d. Alexandrian pods, hand picked, spot, from 4s, 9d, to 5s, 9d, per lb., nominal; medium grades are offered at from 2s, 6d, to 3s. per lb.; manufacturing, 8d.

Shellac.—F.O.T.N., pure, is 320s. per cwt., spot; F.O. Standard 1, 330s.; fine orange, 350s. to 395s.

Valerian.—Spot quotations range from 195s. to 225s, per cwt. for Belgian root; there is a fair inquiry for Indian root.

Waxes.—Prices are unchanged on the week with the exception of Dar-es-Salaam BEES' which is now quoted at 440s, per cwt., spot, and 390s., c.i.f., for March shipment,

Essential and Expressed Oils

Anise.—Quiet and easier on the spo with quotations at 11s. 3d. per lb. fo drums; for shipment, 10s. 9d., c.i.f.

CHAMOMILE.—English-distilled oil is o

fered at from 20s, per oz.

CITRONELLA.—Spot quotations for Celon are at from 8s. 6d.; February-Marchipment, 8s., c.i.f., quoted, Java oil quoted at 20s. per lb., spot, duty paid.

CLOVE. — English-distilled bud oil quoted dearer at from 13s, 9d, to 14s, 6d per lb., according to quantity; Madagasca is from 7s. 6d, per lb. and Zanzibar from 9s. 3d., spot.

Coriander. — English-distilled is quote

CORIANDER. — English-distributed is quoue at about 250s. to 260s. per lb. Dutch i easier at from 180s, to 187s. 6d., dut paid; Russian, 220s., duty paid.

EUCALYPTUS. — Firm. 70-75 per cen (B.P.) is from 5s. 3d. to 5s. 6d. per lb spot: 80-85 per cent., 5s. 6d. to 6s. per lb spot. lb., spot.

GERANIUM .- Prices of Bourbon on the spot have soared to 120s, per lb.; no offer

from origin.

LAVENDER.—French, 38-40 per cent., o spot is offered at from 21s. to 24s. per lb. 40-42 per cent., 22s. to 25s. Spanish spik is 9s. to 9s. 6d. per lb., spot.

LEMON.—Sicilian (4 per cent.) on the spot is quoted at 24s. per lb.; for ship ment, 23s. to 24s., c.i.f.

Lemongrass.—Quiet. Spot quotation for original containers range from 15s. 6 to 17s. per lb., as to seller.

OLIVE.—Importers' Association's rate 26s. 2d. per gall. of 9 lb., ex store, drum included. Additional charges are adde for small quantities, according to costs obreaking bulk, containers, delivery, etc. ORANGE. — West African sweet on the spot is from 8s. 6d. to 8s. 9d. per la Palestinian sweet is from 9s. 6d. to 10s. 6 per lb spot Siglian bitter 17s. per lb spot Siglian bitter 17s. per lb

per lb., spot. Sicilian bitter, 17s. per ll c.i.f. London; on the spot, from 19s. 20s. British West Indian sweet is fro 10s. 9d. to 11s. per lb., spot.

Palmarosa. — Spot values range fro 52s. 6d. to 57s. 6d. per lb.

Rosemary.—Spanish on spot is offer at 7s. to 8s. per lb., as to grade; Da matian, 5s. 6d.

Teaseed.—Refined deodorised edible on the spot is quoted 22s. 6d. per gall. refinery; March-April deliveries, 22s. 6d

THYME.—Steady. Red oil (40-42 pcent, phenols), 10s. 6d. to 12s. 6d. per ll white oil, 17s. to 18s. 6d. per lb., spot.

TI-TREE. — Quotations are from 6s. to Ss. per lb., according to quantity.

VETIVERT.—Bourbon on spot is quot at around 90s. to 95s, per lb., as to gra

YLANG YLANG. — Bourbon on the spis quoted at from 65s. to 70s. per according to grade.

Synthetics and Isolates

OTATIONS are per lb. and vary according to

de, quantity and seller.

CETOPHENONE.—6s. to 9s. Amyl acetate.—6d. Amyl benzoate.—5s. 3d. to 6s. Amyl yrate.—5s. 3d. to 6s. 6d. Amyl phenylace.—9s. 6d. to 12s. Amyl salicylate.—3s. 6d. 5s. AMYL CINNAMIC ALDEHYDE.—15s. to 17s. 6d. THOL.—18s. to 21s. Anisic alcohol.—65s. to 6d. Anisic aldehyde.—Ex paracresol, 17s. to ; ex anethol, 40s. to 42s. 6d., nominal.

; ex anethol, 40s. to 47s. ud., nominal, enzaldehyde.—3s. 6d. to 4s. 6d. Benzophe.

E.—9s. 6d. to 12s. Benzyl alcohol.—

fumers', 3s. to 4s. Benzyl acetate.—3s. to Benzyl benzoate.—Perfumers', 4s. 2d. to 6s. 12yl cinnamate.—From 12s. 6d. Benzyl isobu
ol.—36s. to 40s. Benzyl propionate.—5s. to 6d. Benzyl salicylate.—6s. 6d. to 7s. 6d. 2yl succinate.—10s. 6d. to 14s. Benzylidene 10ne—15s. to 17s. Bornyol.—0s. to 11s. Bornyol. TONE.—15s. to 17s. BORNEOL.—9s. to 11s. BORNYL TATE.—4s. 6d. to 6s. 6d. BROMSTYROL.—32s. 6d.

34s. BUTYRIC ACID.—5s. to 6s.

INNAMIC ALCOHOL.-16s. 6d. to 18s. 6d. CINNA-ALDEHYDE.—6s. 6d. to 7s. 6d. CINNAMYL ACE-E.—22s. 6d. to 25s. CINNAMYL BUTYRATE.—6d. to 30s. CITRAL.—40s. to 50s. CITRONELLAL.
CITRONELLOL.—Ex Ceylon 42s. 6d. to 45s., ninal; ex Java, 35s. Coumarin.—17s. to 19s. DIETHYL PHTHALATE.—2s. 3d. to 3s. DIMETHYL ZYL CARBINOL.—55s. DIAMETHYL HYDROQUI-

E.-37s. 6d. DIPHENYL MENTHANE.-6s. 6d. to DIPHENYL OXIDE.—6s. to 7s. THYL BENZOATE .- 4s. 9d. to 6s. ETHYL BUTYRATE.

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Eugenol.—19s. to 22s. GERANIOL.—Ex Ceylon, 40s. to 41s. 6d.; ex Java, to 63s.; ex Palmarosa, 105s, to 107s. 6d. 6d. to 22s. Hydroxycitronellal.—Perfumers', to 80s.; for soaps, 55s, to 60s, Indole (per .—10s. to 15s. Ionone (100 per cent.).—75s. 88s. Isobutyl acetate.—2s. 6d. to 3s. 6d. Butyl beyont—6s, 3d. to 7s, 6d. Isobutyl Cylate.—5s. to 6s. 6d. Isobutyl Cylate.—5s. to 6s. 6d. Isobugenol.—22s. to

. 6d.

JNALOL.—40s. to 45s. LINALYL ACETATE.—42s. 6d. 46s. METHYL ACETOPHENONE.—12s. to 14s. THYL ANTHRANILATE.—15s. to 17s. 6d. METHYL ZOATE.—5s. 3d. to 7s. 6d. METHYL CINNAMATE. is. 6d. to 12s. 6d. METHYL PHENYLACETATE.-6d. to 7s. 6d. Methyl ionone.—95s. Musk fone.—42s. 6d. Musk xylol.—7s. 9d. Mus-D OIL (artificial).—11s. 6d. to 14s. Musk BRETTE.-42s. 6d. to 45s.

Nerolin bromelia.—14s, to 15s. 6d. Nerolin yara va.—9s. to 10s. 6d. Paracresyl acetate.—8s. 6d. 98. 6d, Paracresyl Phenylacetate.—98. to 6d, Phenylacetaldehyde.—608. to 658. Phenyletic acid.—58. 6d. to 68. 6d. Phenylethyl i0Hol.—218. 6d. Phenylpropyl alcohol.—258. RHODINOL.—250s. to 255s. SAFROL.—10s. 6d. to SANTALOL.—95s. to 120s. STYROLYLENE ACE-TE.—11s. to 14s. TERPINEOL.—Perfumers', 11d. to 3s, 9d. Terpinyl acetate.—6s, to 8s. Tivenol.—230s. Vetiveryl acetate.—263s.

ITALIAN ESSENTIAL OILS

In January, the demand for Italian essential oils on the Italian market was at a low level. Exporters and merchants were not unduly perturbed, however, as fair-sized purchases were made by a number of foreign buyers, and the export demand for peppermint and lavender oils was brisk throughout the month. The United Kingdom purchased moderately large quantities of Sicilian and Calabrian lemon, orange, mandarin and bergamot oils (and natural citrus juices). Prices were below those of recent months, particularly in lower-grade oils, but there is an indication that prices are now moving upwards.

Exports of perfumery essences in 1949 were satisfactory, and exceeded the level of the previous year. Large quantities were shipped to the United Kingdom, France, the Argentine and Brazil; sales were also made to countries of the Middle and Far East. In the last quarter of 1949, British purchases were much reduced and exchange difficulties were encountered with the South American republics. It is thought that in the current year exports will not

reach the 1949 level.

At a recent conference in Palermo reports were made on progress in the methods of production of Sicilian oils. Modern machinery has improved both the quality and yields. The larger works are installing pasteurisation and concentration plants for citrus juices, as well as machinery for making syrups and preserves as by-products of the industry. Control of quality of essential oils is exercised by Camera Agrumaria, Messina, but manufacturers in northern Italy are asking that laboratories in Milan and other towns should also be empowered to carry out tests on oils. In March, an international conference is being held in Reggio Calabria to study the problems of the citrus fruit industry. Among problems to be discussed are cultivation, diseases and pests, improvements in the extraction of oils, the use of terpenes and sesquiterpenes, the employment of citrus essences in the perfumery, liquor and confectionery industries and in medicine, and the utilisation of residues.

Survey of Belgium. — A report on economic and commercial conditions in Belgium, with an annex on Luxembourg, has been published by H.M. Stationery Office (price 1s. 6d. net) in the series of overseas surveys issued by the Commercial Relations and Exports Department, Board of Trade.

TRADE MARKS

(From "The Trade Marks Journal," February 8). For insecticides, fungicides, and weed- and vermin-killing preparations (5).—" P.P." in circle device made from the words "A Plant Protec-TION PRODUCT "; by Plant Protection, Ltd., Yald-

ing; 671,164.

For pharmaceutical preparations (5).-" MANDELA-MINE"; by Nepera Chemical Co., Inc., Yonkers; B676,363. "Chloresium" in distinctive lettering; by Rystan Co., Inc., Mount Vernon; 678,586. "Domogen"; by Duncan Flockhart & Co., Ltd., Edinburgh; 681,151. "Dor," "Sulfacillin," "Kidoprin," "Kidosomin," "Kidosomin," "Kidosomin," and "Kidecillin"; by Clinical Products, Ltd., Richmond; B682,023, 682,211, 684,015-19. "INTRADEX"; by Dextran, Ltd., Darlington; 682,312. "Vitaxo-Lin"; by Bayer Products, Ltd., London, W.C.2; 683,524. "BITEVAN"; by Evans Medical Supplies, Ltd., Speke; 685,015.

For anthelmintics (5).—" VERMIPLEX"; by Allied Laboratories, Inc., Kansas City; 680,212.

For all goods (5).—"MACROMIN"; by The British Drug Houses, Ltd., London, N.1; 681,294.

For pharmaceutical preparations, infants' and invalids' foods (5).—"HYALASE"; by Benger's, Ltd., Ipswich and Holmes Chapel; 683,340. "OVALTINE" and device of girl in period costume; by A. Wander, Ltd., London, S.W.7; 684,361 and 684,365.

For preparations of rose-hip syrup (5).—" Rosena"; by H. W. Carter & Co., Ltd., Coleford, Glos; 683,520.

For laxative preparations (5).-" KIDOLAX"; by Clinical Products, Ltd., Richmond; 684,017.

For sun glasses (9).—"Thurgaspex"; by Thurgar Bollé (Successors), Ltd., Wellingborough; 683,322.

For surgical instruments (10).—" UNA-OID"; by England Brothers & Co., Ltd., Sheffield; 684,007.

For non-medicated toilet paper (16).—" HYGIENIC PINE" on label device including mountains and pine trees; by Dick Wright & Son, Ltd., Stanmore; 674,442.

For powder puffs (21).—" Pussy-Willow"; by Anglo-Dutch Pharmaceutical Co., Ltd., Birmingham: 662,865.

(From "The Trade Marks Journal," February 15)

For all goods (3).-" REMPLOY" and device of oak tree; by Remploy, Ltd., London, S.W.1; 674,147.

For non-medicated toilet preparations for the hair (3).-" CAPSICURL"; by Nora Redfern, London, W.1; 676,298.

For detergents and soaps (3).—"Duxo"; by Bell & Sons, Ltd., Liverpool 3; 677,075. "LIGHT-SHIP"; by Industrial Soaps, Ltd., London, S.E.1; 684,047.

For non-medicated toilet preparations (3).—
"Gosnell" "Gosnell's"; by John Gosnell & Co., Ltd., Lewes; 678,436-37.

For all goods, excluding infants', invalids' and dietetic foods or medicated confectionery (5) .-"MELLIPAN"; by Ciba Ltd., Basle; 674,348.

COMING EVENTS

Items for inclusion under this heading should sent in time to reach the Editor not later than f post on Wednesday of the week of insertion.

Sunday, February 26

Branch, National Pharmacet St. John Ambulance Headquarters, PHARMACEUTI CORNISH Union, St. John Ambulance Headquarters, Road, Truro, at 2.30 p.m. Address by Mr. D. Jennings (Superintendent, S.W. Pricing Comtee). Meeting open to all pharmacists.

Tuesday, February 28

BURNLEY BRANCH, PHARMACEUTICAL SOCIETY, Y shire Hotel, Burnley. Annual dinner. Ticket come Club, High Street, Dartford, at 8 p. Mr. W. K. Fitch (editor, "The Pharmacc cal Journal"), on "The Society's Publication ARROW BRANCH. PHARMACEUTICAL SOCIETY'S Publication ARROW BRANCH. DARTFORD BRANCH, PHARMACEUTICAL SOCIETY,

HARROW BRANCH, PHARMACEUTICAL SOCIETY, Hall, Baptist Church, College Road, Harrow 7.30 p.m. Dr. G. R. Boyes on "The Treatn of Tuberculosis."

of Tuberculosis.

Wolverhampton Chemists' Association, Victorial Transfer at 7.30 p.m. Professional Transfer at 7.30 p.m. Hotel, Wolverhampton, at 7.30 p.m. Profe H. Berry, B.Sc., Ph.C., on "The Br Pharmaceutical Codex, 1949."

Wednesday March 1

EDINBURGH AND SOUTH-EASTERN SCOTTISH BRAI PHARMACEUTICAL SOCIETY, Trinity Café, I Street, Galashiels, at 7.30 p.m. Messrs, Knott on "A Review of the British Pharma tical Codex, 1949," and J. C. Somerville, "General Pharmaceutical Topics."

Thursday March 2

LONDON PHARMACISIS' BRANCH, ASSOCIATION SCIENTIFIC WORKERS, 15 Half Moon Street, don, W.1, at 7 p.m. Business meeting.

BIRKENHEAD AND WIRRAL PHARMACISTS' ASSOCIATE Birkenhead Town Hall, 8 p.m. to 1 a.m. Car dance,

PORTSMOUTH BRANCH, NATIONAL PHARMACEUT UNION, Solent Hotel, South Parade, Sout at 7.30 p.m. Mr. R. H. Kemp, Ph.C.. "C.F. and N.P.U. Affairs."

Association of Glasgow Pharmacists, Ce a Halls, 25 Bath Street, at 7.45 p.m. Discust on current topics.

Friday March 3

SOUTH-WEST LONDON CHEMISTS' ASSOCIATION, penter's Restaurant, The Pavement, Lor S.W.4, at 7.45 p.m. Dr. J. Barnes on 'Hormones.'

LIVERPOOL CHEMISTS' GOLFING SOCIETY control of the season on May 3 with a competition and annual meeting at the West Derby Golf Control of the club secretary is Mr. C. Stewart Culler of the club secretary is Mr. C. Stewart Culler of the club secretary is Mr. C. Priory Road, Liverpool.

THAMES VALLEY PHARMACISTS' ASSOCIATION holding a dinner and dance at Restaurant Fra Oxford Street, London, on March 8. Ticket

Oxford Street, London, on March 8. Ticket Export Lectures.—A series of twenty lunch lectures on aspects of export trade is being weekly at Conway Hall, Red Lion Square, don, W.C.2, between March 7 and August 1 jects: Selling overseas, shipping the goods, ancing export, exchange and trade control, legal aspects of overseas trade. The fee for course is 10s. 6d, to members of the Institu Export, 21s. to non-members. Applications tickets should be sent to the Secretary, The stitute of Export, 140 Cromwell Road, Loi S.W.7. S.W.7.



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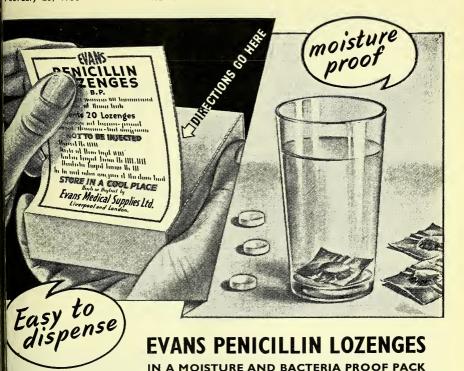
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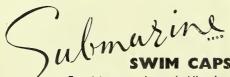
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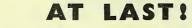
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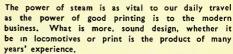
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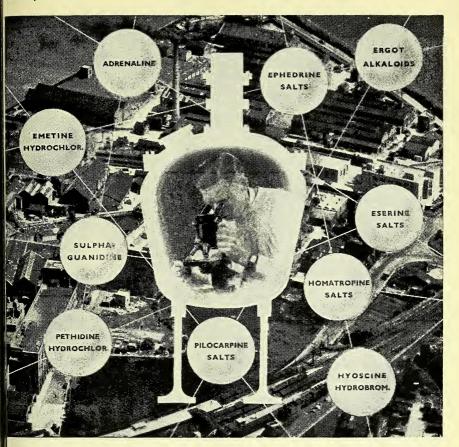
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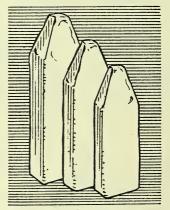
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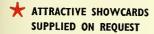
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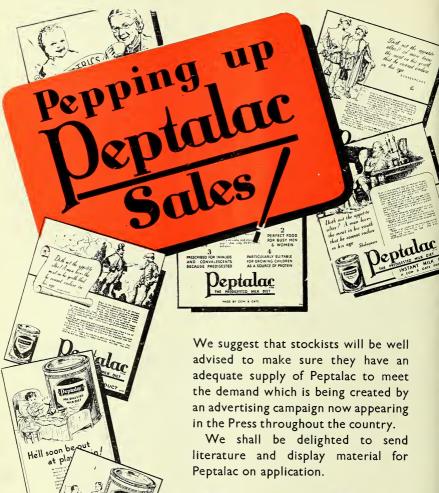
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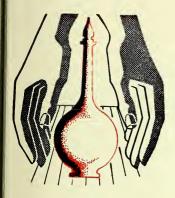


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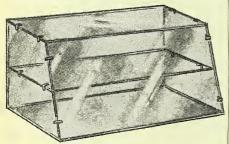
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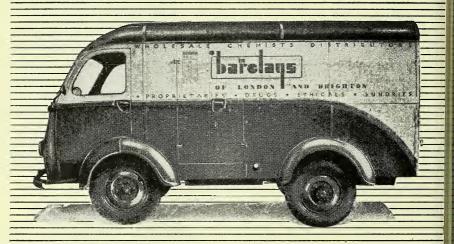
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Complevite's formula is based on the body's fundamental need for nutritional completeness. Containing the most important vitamins and minerals, in rational dosage, it is designed to make certain of the presence of all the "inseparables"—to make good those factors commonly needed as additions either to the average or the "special" diet.

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a single supplement for multiple deficiencies Retail cost of 20 days' supply (120 tablets) 5s. Trade discount 331%

Make sure your stocks of COMPLEVITE are sufficient to meet the demand.

VITAMINS LTD., UPPER MALL, LONDON, W.;

THE SYMBOL OF



QUALITY AND SERVICE

SPECIALISTS IN THE MANUFACTURE OF

Aspirin Salicylates and Allied Products

Although Aspirin and Salol are readily available, certain Salicylates are still in short supply but we will do our best to meet your requirements.

Graesser Salicylates Ltd. SANDYCROFT NEAR CHESTER

Phone: Hawarden 2125. Grams: Quality, Chester

When it's Sundries Think of "Ritchies"!

A few samples from our range:
Arch Supports Gillettes
Hypodermic Need-Personna

Hypodermic Needles (Stainless)
Dunlopillo
Dressings of all
Cushions

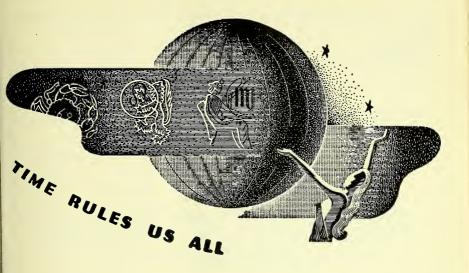
Weighing types Electric Blankets

Machines Heat-Pads
Ramer Sponges "Agrippa" Teats

Spontex Sponges Feedrites
Pill Boxes Dropper Bottles

Scissors of all Types
We stock Addis, Halex and
Hygex Brushes
Scottish distributors of Plim Hypodermic
Syringes

George B. Ritchie & Co 249 Buchanan St. Glasgow C.1 Tel: DOUglas 0532/3



... but for customers who depend on insulin to control carbohydrate metabolism it assumes an even greater significance.

In the selection of the type of insulin, speed of action and duration of effect are all-important factors. There are forms of A.B. brand of Insulin to meet all requirements.

INSULIN A.B.: The original unmodified type. Immediately effective but relatively short-lived.

5 and 10 c.c. vials (20, 40 and 80 units per c.c.)

GLOBIN INSULIN (with Zinc) A.B.: A combination of insulin and globin which has a slower and more prolonged action than Insulin A.B.

5 c.c. vials (40 and 80 units per c.c.,

PROTAMINE ZINC INSULIN A.B.: A suspension of insulin precipitated by protamine which is absorbed slowly, thus delaying the initial action and prolonging the effect for 24 hours and upwards.

5 c.c. vials (40 and 80 units per c.c.) 10 c.c. vials (40 units per c.c.)



Insulin A.B.

know from experience
that GOYA's 4 toilet soaps—Gardenia,
Rose Geranium, Blue Moss and
Yellow Gorse—have been eagerly bought
by smart women. They

can't get enough of a fine quality soap which has this great advantage; both body and fragrance are long-lasting yet it lathers well in the hardest water.

Goya soap, packed in smartly-coloured boxes of three tablets each, sells for 1/8 a 3 oz. tablet. You can't stock

too much for period 13/1.

Send your S.P.3 to GOYA, Badminton Court, Amersham, Bucks. before April 30th, 1950, for whatever quantity you require. Trade price 12/- per dozen.

Soap by

161 NEW BOND STREET LONDON WI

For oral administration . . .

"CALCIUM-SANDOZ"

is supplied in

two very palatable forms

CHOCOLATE FLAVOURED TABLETS

(12 $\frac{1}{2}$ grains calcium gluconate) Boxes of 60 Tablets

Dispensing Size: Tins of 1,000 Tablets

EFFERVESCENT TABLETS

(60 grains calcium gluconate)

Tins of 12 and packages of 60 Tablets

SANDOZ PRODUCTS LIMITED

134 WIGMORE STREET, LONDON, W.1





As direct importers from all the main Honey-producing Countries of the World, we can supply Standard Grades of the finest Honey for all Manufacturing purposes.

Supplied in 7-lb, and 56-lb, tins and in barrels

L. GARVIN & CO. LTD.
ISLEWORTH . MIDDLESEX

Telephone: HOUnslew 3483 (3 lines)

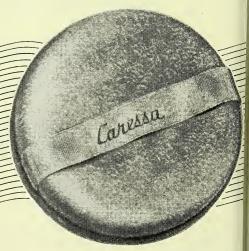
DRUMMER DYES-

Successful home dyeing leads the way for Successful Sales

WILLIAM EDGE & SONS LTD.
BOLTON

JN 900

Acknowledged to be the finest velour puff, made from deep pile soft silky velour, and presented in an attractive pack



Laressa

CARESSA LIMITED, 527/533, HARROW ROAD, LONDON, W.10.

PENICILLIN

PRICE REDUCTION

The Distillers Company (Biochemicals) Ltd. are pleased to announce that continued technical progress makes it possible for their

CRYSTALLINE PENICILLIN G

(all packs) to be sold, as from Monday 27 February 1950, at the same prices as their Amorphous (Coloured) Penicillin Sodium Salt:

		single vial	box of 5 vials	
100,000 i.u. (0.1 mega unit)	 	1s. 3d.	6s. 3d.	
200,000 i.u. (0.2 mega unit)	 	1s. $10\frac{1}{2}$ d.	9s. 4½d.	
500,000 i.u. (0.5 mega unit)	 	3s. 6d.	17s. 6d.	
1,000,000 i.u. (1 mega unit)	 	6s. 6d.	32s. 6d.	

single container

5 1	mega	units	•••	 31s.	3d.	
10 1	mega	units		 60s.	0d.	

all prices subject to the usual discounts

morphous (Coloured) Penicillin Calcium salt (available only in packs of 1 and 10 meganits) is also reduced to the above price level.

applications from the retail and wholesale trade for credit on stocks held on 25 February 950 should be made within 14 days to the supplier by whom the goods were invoiced. Details of batch reference numbers should be specified in claims.

Distributors:

LLEN & HANBURYS LTD.

BURROUGHS WELLCOME & CO.

OOTS PURE DRUG CO. LTD.
RITISH DRUG HOUSES LTD.

EVANS MEDICAL SUPPLIES LTD.

IMPERIAL CHEMICAL (Pharmace uticals) Ltd

PHARMACEUTICAL SPECIALITIES (May & Baker) Ltd.

HE DISTILLERS COMPANY (BIOCHEMICALS) LTD.

CRUDE DRUGS

ESSENTIAL

GUMS

OILS

WAXES

Brome & Schimmer

WHOLESALE DRUGGISTS

BOTANICAL DRUG IMPORTERS AND SPICE MER-CHANTS, DRUG AND SPICE MILLERS

7 LEATHER MARKET, LONDON, S.E.I



1820 - 1950

C. R. HARKER, STAGG & MORGAN LTD

beg to announce that, for convenience, the Company has abbreviated its name to that by which it is generally known, and with the approval of the Board of Trade is now called . . .

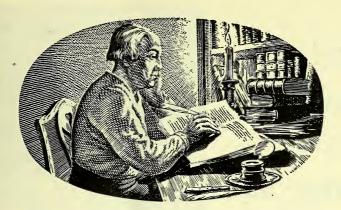
HARKER STAGG LIMITED

HARKER STAGG LIMITED

EMMOTT STREET, LONDON. E.1.

Phone, STEpney Green 2022

1 Mount Brown, DUBLIN and 704 Hamstead Road, BIRMINGHAM, 19.



And then the aether which I made, Claimed nearly all the aether trade Throughout the trading nation; And I with confidence might say, That none before me knew the way To do the operation.

Thus in light-hearted doggerel verse Joseph Jewell (Luke Howard's foreman and later his partner) recorded his numerous and important chemical achievements. Luke, however, was less carefree in his method of expression. Ever since 1797, when he founded the firm of Howards, he recorded in great detail and with the utmost precision every laboratory experiment and every production process. The accuracy of his methods and the extreme care with which he recorded his work and his discoveries formed the foundation of Howards' character today—manufacturers of the finest chemicals.

Safe as HOWARDS

Bromides, Citrates
Iodides, Iron Salts
Bismuth Salts
Sodium Bicarbonate



Lactates, Aspirin Salicylates, Ethers Quinine Salts Tablets—etc.—etc.

HOWARDS & SONS LTD . ILFORD near LONDON

TPUL E

Local Chemist gets a Winter Sales Surprise

"I've been in the pharmacy business a good many years," says this suburban chemist, "and I must admit I'd always looked on Ibcol as a summer seller.

But now I find that Ibcol is selling 12 months in the year! I've been well up on Ibcol sales during the summer, and I get high sales during the winter too. More and more housewives are realising that health protection is an all-year-round affair, and Ibcol advertising, educating people into the



regular use of Ibcol, is building up an increasing, regular sales volume. Believe me, it's well worth keeping a display container on your counter and in your window."

* * * *

Ibcol sales increased by over 250% during the past year! Thousands of chemists and druggists are making easy, regular, all-year-round sales cashing in on the powerful nation-wide Ibcol advertising by displaying Ibcol prominently. And when the new biggest-ever Ibcol advertising campaign is launched in spring, the demand for Ibcol will be greater still. Don't miss your share. Give Ibcol priority, display in your shop.



HERE IT IS! Show this handy, attractive 1-dozen display carton on your counter, in your window, all the time — 52 weeks in the year. For the little space it takes up it will yield you handsome, regular profit. If you have difficulty in obtaining supplies, write to Ibbetson, Barking, Essex.

There's a lovely skin



...well that's Nivea

Pictured above is one of the lovely girls who are a feature of the new advertising scheme for Nivea Creme,

under the title "Well, that's Nivea."

Throughout 1950, this attractive advertising will appear in all the popular big-selling women's weekly magazines, and will tell the public how Nivea protects, nourishes and beautifies the skin. Window display material, to suit different seasons, is available on request.

Keep your stocks well up to meet the increased demand that will result from this compelling national advertising.

for skin-health and beauty



тбі

HERTS PHARMACEUTICALS LTD . WELWYN GARDEN CITY . HERTS





BRYLFOAM

Yes, millions of women have proved for themselves the brilliant results they get with Brylfoam, the original cream shampoo. They know that Brylfoam reveals the true beauty of their hair and makes it radiantly clean; they know, too, that Brylfoam is so beautifully easy to use. That's why Brylfoam means ready sales and quick profits for you. Get your share of the brisk business Brylfoam brings. Help our bigger-than-ever advertising to do an even bigger job by linking up with window and counter displays. Keep up your stocks of Brylfoam—and keep up your profits!

THE ORIGINAL CREAM SHAMPOO



Introducing

"SIOGEN"

Dragees



ANTISEPTIC FOR THE MOUTH AND THROAT

The active ingredient of "SIOGEN" is 5.7 dichloro-8-hydroxyquinaldine, 2 mgms, an energetic bactericide and fungicide.

An effective prophylactic against infection and indicated in the treatment of inflammatory conditions of the mouth and pharynx, sore throat, tonsillitis, Vincent's infection, thrush, etc.

Packets of 20 dragees (each dragee enclosed in cellophane)

Retail Price 2/6 Inc. Tax. 16/- per dozen. Plus Tax.

Containers of 100 dragees —

Retail Price 9/2 Inc. Tax. 60/- per dozen. Plus Tax.

and in bulk for dispensing

Messrs. Walter Crowe Limited, Marketing Distributors, are our Selling Agents to the Trade, and orders may be placed with their Representatives at the time of their regular and frequent calls.



Orders sent by post should be addressed to :-

PHARMACEUTICAL LABORATORIES GEIGY LIMITED

National Buildings Parsonage Manchester,

PH 14b

A sure 'seller'

. when displayed near your baby scales or with baby requisites



THE BABY

absorbent cellulose with pink unabsorbent backing.

Pkts. of 24 = 18/- per doz.

Retail 2/- per packet.
Packets of 12—11/3 per doz. Retail 1/3 per packet.

TIE UP SALES WITH: The NAPSOL Baby hygienic Panty



Attractive Five Colour Display Box

M. MERICA & Co. Ltd.

OUEENS MILL SHAW ROAD OLDHAM LANCS.

Telephone: MAIN 5803

There's a Growing Demand for

Subblying

'NERVONE' is the natural corrective for disorders of the nervous system; it restores lost vitality, strengthens the digestive organs and furnishes to the system those precious elements without which the nerves cannot function effectively and life itself become a "Nightmare" of worries and fears.

You should make sure of your share of 'Nervone' sales by stocking and displaying. Show material gladly sent free on request.

Retail 5/6, 22/per packet

(including Tax) Wholesale 48/-, 192/-

per doz.

"NERVONE"

Cecil House, Holborn Viaduct, London



Doctors prescribe Sunlamps right through the year All sales go through the trade but chiefly through

those dealers who display Britain's most comprehensive range of ray-therapy equipment:-Perihel Ultra-Violet and Infra - Rec Appliances.

Apply for Showcards and literature to: PERIHEL LIMITED, 17 Edge Street London, W.8. Phone: PaRk 7870



Manufactured only by

J. F. WHITE & CO., LTD.

Lovington Laboratory, Benson Street, Leeds

IMPORTANT ANNOUNCEMENT

THESE PRICES OPERATE FROM MARCH 1st 1950

PLEASE NOTE THE CHANGES SHOWN IN HEAVIER TYPE

TRADE VASELINE

BRAND

PREPARATIONS

					Retail Price Inc. P. Tax	
661	Vaseline" Blue Seal	Yellow	Petroleum	Jelly	11151 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	* Bottle	•••	•••	• • • • •	50/- per gross 7d. †	
"	aseline" Yellow Po	etroleum	jelly			
	* Tin	•••	•••	• • •	28/- per gross 4d. †	
	I Ib. tin		•••	• • •	21/6 per dozen 3/- †	
	7 lb. tin	• • •		•••		
••	Vaseline " White Po	etroleum	jelly			
	* Tin	•••	•••	• • •	$32/$ - per gross $4\frac{1}{2}d$. †	
		•••	• • •	•••	4/9 per dozen 8d.	
		•••	•••	•••	9/- per dozen 1/3 †	
	I Ib. tin		•••	•••	27/- per dozen 3/9 †	
66	7 lb. tin	Datuslau	m Jalles	•••		
	Vaseline '' Borated * Tube				8/- per dozen 1/3 †	
66 1	Vaseline" Capsicun			•••	0/- per dozen 1/3 /	
	* Tube	i i ceroic	uni jeny		8/- per dozen 1/3 †	
66 1	Vaseline" Carbolat				o/ poi dozeii ./o /	
	* Tube				8/- per dozen 1/3 †	
44	Vaseline" Campho	r Ice			-7	
	* Card Box				5/- per dozen 9d. †	
44	Vaseline" Hair Ton	ic				
	* Size I	•••		• • •	13/- per dozen 2/6½ ‡	
		•••	•••	•••	20/6 per dozen 4/- ‡	
"	Vaseline" Soapless	Shampo	0			
	* Packet	•••	•••	•••	2/8 per dozen 5d. †	
ak					† subject to 331% P. Tax	K
44	AXIA				t subject to 100% P. Tax	

The Trade Mark VASELINE is registered in Great Britain and in most of the principal countries of the World

This Price List is subject to alteration without notice

CHESEBROUGH MANUFACTURING CO., LTD.

Victoria Road, Willesden, N.W.10



and Kay's Compound Pastilles in 50/- lots.

Mixed parcels are very profitable

3 doz. I/7 Kay's Linseed Compound	1			
		£١	10	9
3 doz. I/II Kay's Compound Pastille	s			
@ l2/- doz	-	- 1	16	0
		3	6	9
Add Purchase Tax -	-	- 1	3	3
		£4	10	_0
Selling Price		£6	6	0

From your wholesaler or direct from KAY BROTHERS LTD., REDDISH STOCKPORT

MAG. CARB. POND. B.P.

PROMPT DELIVERY
GOOD PACKING
COMPETITIVE PRICE

DUNN BROTHERS' SUCCRS. LTD.

I Booth St., Manchester



GEE'S LINCTUS

PASTILLES

A complete medicine in pastille form.

2 Pastilles are equivalent in therapeutic value to I teaspoonful of the linctus.

DEMULCENT, SOOTHING & BRONCHO SEDATIVE



Packed in attractive 2-oz. tins retailing at 1/6.

COST 9/9 doz. plus 3/3 P. Tax
6 doz. lots 9/6

12 doz. ,, 9/3 ,, ,, ,,

Obtainable from your usual wholesaler or direct carriage paid.

RODMILL CHEMICAL CO. LTD., LIVERPOOL 3

FAMOUS FOR OVER 90 YEARS

Fennings' HOME REMEDIES

the well tried Profit-earning READY 'SELLERS'



Fennings'

Pittle Healers

Coughs, Colds, Bron.

For Coughs, 1/6 and of 12 chitis, etc., Carton of 7d. Also 7/- per retailing at 7d. Packets, each.

FENNINGS'
WHOOPING
COUGH
MIXTURE

And for other coughs too. Coughs

RHEUMATIC TABLETS

Retail Price 2/6 for Tablets

Fennings'
Fever
Mixture

per bottle retails at 1/6

Unheralded except for the usual spate of coughs and colds, winter makes her debut and wise families are aiready replenishing medicine chests with Fennings' remedies.

nings' remedies.
Have you sufficient stocks for the extra business?
Order now through your usual wholesaler, or if in difficulty write to:—

ALFRED FENNINGS . HORSHAM . SUSSEX

N. H. S. Patterns



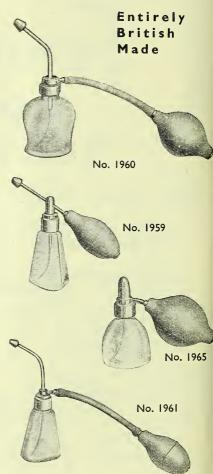
SAMCO Atomisers and Sprays differ from types in general use in that each model is a Scientific Instrument specially designed to handle all types of spraying compounds without the necessity to adjust the nozzle of the instrument in any way.

Each instrument is manufactured and assembled to mathematically exact limits thereby assuring uniform performance.

Materials of the finest quality only are used and all components in direct contact with fluids are made of pure nickel, which is impervious to every known substance used in medical prescriptions.

All components are heavily chromium plated.

All SAMCO models are pressure operated, thus ensuring complete atomisation.



Supplies available from your usual wholesaler

S. MURRAY & Co. Ltd.

Actual Manufacturers

45 ST. PANCRAS WAY · LONDON · N.W.I

Telephone: EUSton 1757 & 5514



SPECIAL PRICES FOR LARGE QUANTITIES OR ASSORTMENTS ON APPLICATION



MANUFACTURING CHEMISTS & WHOLESALE DRUGGISTS

TINCT. BENZOIN.CO.

COMPOUND TINCTURE OF BENZOIN

Synonym - FRIARS RALSAN

LANE, LONDON, E.I. Grams: Horehound, 'Phone, London. ARTILLERY Phone: BISHOPSGATE 4761.

77 DANTZIC STREET, MANCHESTER 4 Phone: BLACKFRIARS 8734. Grams: Horebound, Manchester.

62 ORBISTON STREET, MOTHERWELL Phone: MOTHERWELL 1413 Grams: Horebour Grams: Horebound, Motherwell.

P.C.T.2.B









your lipstick sales with the profit-making line that women everywhere have waited for! LIP-COTE—the only preparation of its kind—applied over lipstick, definitely safeguards against smear, while enhancing lip beauty. Widespread national advertising now being launched. Send for details, including attractive trade terms to:—

British Glandular Products Ltd 37 Chesham Place. London, S.W.I

COTE

Retail Price 6/61.

Inc. P.T.
7/7d.

for SMEARPROOF LIP

MENN FIRE

PENICILLIN 'B.W. & CO.'

reductions in retail prices

The following reduced retail prices for Penicillin and Penicillin Products issued by B. W. & Co. come into effect on 27th February, 1950:

	NEW LIST PRICE
'TABLOID' PENICILLIN (Calcium Salt) (for oral administration)	s. d.
20,000 l.U. per product, bottle of 20	6 8
100,000 ,, ,, ,, tube of 10	14 0
'TABLOID' PENICILLIN (Calcium Salt) HYPODERMIC	
BRAND (No. 166)	
10,000 I.U. per product, tube of 10	2 0
'TABLOID' PENICILLIN (Calcium Salt) LOZENGE	
BRAND	
500 I.U. per product, bottle of 20	1 2
4	
'WELLCOME' PROCAINE PENICILLIN OILY INJECTION	
88AND (Sterile) 300,000 I.U. per c.c., rubber-capped bottle of 10 c.c.,	
300,000 1.0. per c.c., rubber-capped bottle of to c.c	1, 0
PENICILLIN (Calcium Salt) (Coloured)	
I Mega Unit, per vial	6 6
10 Mega Units, ,, ,,	60 0
200 ,, ,, ,, ,,	£57 10s.
CRYSTALLINE PENICILLIN G (Sodium and Potassium Salts)	s. d.
0·1 Mega Unit, per vial	1 3
0.2 ,, ,, ,,	1 101
0.5 ,, ,, ,,	3 6
l " " "	6 6
5 Mega Units, ,, ,,	31 3
10 ,, ,, ,,	60 0
200 ,, ,, ,,	£57 10s.

Prices of bottles of 50 'Tabloid' brand Penicillin Lozenge and of 'Wellcome' brand Penicillin (Oil Wax) Suspension and Penicillin (Sodium Salt) (Coloured) are unchanged





CONSTANT RESEARCH

Research, Standardisation, Activity, Purity—these important factors have built up the high reputation of "Oxoid" Medical Preparations.



Your orders, by letter, telephone or telegram are dealt with immediately and goods reach you in the shortest possible time.

Among the many "Oxoid" Medical Preparations are: Liver Extract, Hormones, Vitamins, etc.

OXO LIMITED

Medical Dept. THAMES HOUSE, QUEEN ST. PLACE
LONDON, E.C.4

Telephone: CENtral 9781

Liquid Paraffin White Oils and Petroleum Jellies

Further information, samples and quotations on request to

WHITE OILS DIVISION:

MANCHESTER OIL REFINERY (SALES) LIMITED

Twining Road, Trafford Park Manchester 17

Telephone: TRAFFORD PARK 2651
Telegrams: REFINERY, ECCLES, MANCHESTER

M.O.R GROUP OF COMPANIES
BRITISH REFINED OILS

In the choice of an Analgesic CODALGIN

has a Perfectly Balanced Formula and the BAYER quality behind it

TX/HY is 'Codalgin' better? Its carefully balanced formula makes pain-relief quick, safe and prolonged. There are no by-effects. The packing is hygienic and attractive, and the four-tablet block is useful for pocket and handbag.

These trade terms are worth noting:-

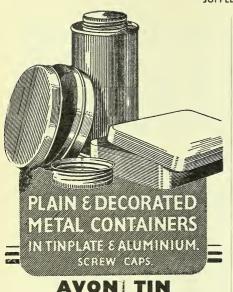
Discount of 331%

Bonus of 14 to the dozen on orders of 6 dozen

cartons of 20 in exchange for display. Purchasing under these terms shows a profit of 9d. on each packet sold. 'Codalgin' is retailed at 20 @ 1/9d.,

bottles of 100 @ 7/6d. P. Tax extra. YER

AFRICA HOUSE. KINGSWAY. W.C.2 LONDON,



PRINTERS' LTD

IMPERIAL WORKS, ST. GEORGE, BRISTOL, 5
GRAMS TINPAX BRISTOL PHONE BRISTOL 57877/8

STANDARD SYNTHETICS

LIMITED

Actual distillers of Essential Oils

Manufacturers of Aromatics, Perfame

Bases and Flavours.

We specialise in Cinnamon Ba.k Oil, Juniper Berry Oil, Wintergreen Oil, Eucalyptol, French Lavender Oil, Terpeneless Lemon Oil, Rose Perfumes, etc.

76 Glentham Rd., Barnes London - S.W.13

Telephone:-Riverside 3616



Consoler No. 410702

(Registered)

SUPERFINE QUALITY
ALL WOOL SANITARY TOWEL

LOOPED ENDS
NON-ABSORBENT BACK
WHOLESALE ONLY

ROBERT BAILEY & SON, LTD

SURGICAL DRESSING MANUFACTURERS

DYSART STREET, GREAT MOOR, STOCKPOR

THOSE MANUFACTURES

OF THE CONTROL OF THE CON

Uptrex

THEY SEE ..

YOU SELL

Your customers see Optrex Ivertising; indeed, it's true to say f these advertisements that "you in't miss them". They are bold, nd simple: they consistently get tention. Better still, they produce ction—and action means sales. The fect of Optrex advertising is cumutive, and sales will inevitably be igger still this year. Stock up NOW.

Opliex the EYE LOTION

Don't let these eyes





OPTREX stands alone as the supreme eye lotion. It is made under conditions of clinical asepsis. There are no doubts in recommending Optrex.

 OPTREX is approved by doctors and opticians. It is sterile and abso'utely safe for all eyes at all ages. A universal need, known universally.

OPTREX is widely advertised in the National press and magazines to maintain steady demand and quick sales.

DRDER NOW_FOR BIGGER BUSINESS IN SIGHT! KELDON LTD PERIVALE MIDDLESEX



ole Distributors for Optrex Ltd., PERIVALE LABORATORIES LTD., MELVET LTD., VETCO LTD.



MANUFACTURING CO, LTP

PERFUMES

CONCENTRATED ESSENCES
AROMATIC CHEMICALS
SYNTHETIC ESSENTIAL OILS
TERPENELESS
,,
for all purposes

SEALAND ROAD



CHESTER

GRAMS: "SYNTHETICS," CHESTER

A.B.C. CODES, 5th & 6th EDITIONS

PHONE: CHESTER 664

FOR COLLECTION BY C.R.S

- and help save dollars

Fibreboard contains wood pulp and wood pulp costs dollars—so does the machinery that makes the containers. Saving C.R.S-marked empties means a saving in dollar expenditure, and is a vital national duty in these difficult times.

Container Recovery Service

S.P.D. Limited, 3-5 Salisbury Square, London, E.C.4

CRS 61-683

DO YOUR BIT-CONTAINER RECOVERY HELPS NATIONAL RECOVERY and it sells on sight

This quality dog food contains concentrated neat, liver and fish. It is packed in handy airtight ins, attractively labelled in red and black, and pecially designed for easy stacking and display.

Bright attractive showcards and window bills are ow available.

Order your supplies of Wiles Vitamin dog food hrough your usual Wholesaler.

10 d dog to d by Wood RETAIL PRICE

Made exclusively by WILES of WOODMANSEY E. YORKS.

The finest dog food in the world

SELL REPROFITS

RENTAN is the LATEST SCIENTIFIC DISCOVERY IN RODENT DESTRUCTION. It is the PRODUCT with the pre-bait APPROVED BY THE AUTHORI. TIES. PACKED IN ATTRACTIVE CARTONS, RENTAN IS EASY TO DISPLAY, EASY TO SELL and BRINGS MORE PROFIT TO YOU. RENTAN is a KILLER not a repellent.

ASK YOUR WHOLESALER

Every Wholesale Chemist in the British Isles has full particulars of the RENTAN discount scheme. APPLY TO HIM NOW for supplies of this RELIABLE RAT AND MOUSE KILLER.

RENTAN RETAILS

ATA per packer

RENTOKIL LTD., SCHOOL LANE, FETCHAM, LEATHERHEAD, SURREY

Telephone: Leatherhead 4021/2

a Timely Budget Reminder

As already announced (C. & D. 14th Jan.)

CLINICAL PRODUCTS LTD. RICHMOND, SURREY

will, in the event of reduction or rescission of Purchase Tax, indemnify you against possible losses on their products by supplying Free of Charge* any C.P.L. preparations to the value of your P.T. loss, if any. You may therefore continue to order with confidence C.P.L. preparations including—

PERSOMNIA, Tablets

MENOVO Tablets

MENOPAX Tablets

MENOPAX Antipruritic Cream

POLYCREST Antipruritic Cream

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any shape or size up to 1½° (bulk or packed)

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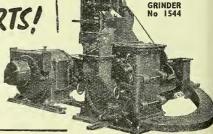
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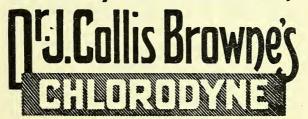
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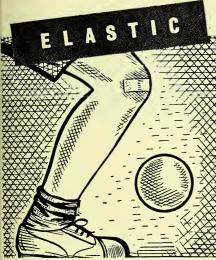
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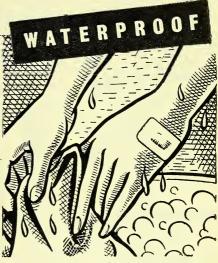
ADHESIVE DRESSINGS

RADE MARK



BAND-AID *Elastic* for minor wounds on joints and awkward angles.

43



BAND-AID Waterproof for extra protection against water, oil, acids and grease.

Improved BAND-AID *Elastic* is the perfect adhesive dressing for all minor wounds on joints and angles where the skin stretches. BAND-AID *Waterproof*, impervious to water, acids, oil and grease, is the *only* dressing that is "double-bonded"—the adhesive remains firmly attached to its backing so that the dressing peels cleanly from the skin. Tell your customers to keep both kinds of BAND-AID Dressings handy—and make two sales instead of one!

ELASTIC small tins 5/ld. dozen: retail price 7½d. Large tins 10/4d. dozen: retail price 1/3d. WATERPROOF tins 8/- dozen: retail price 1/
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because of our heavy purchases immediately before war broke out. Our stock are still considerable and the high MBL standard will be fully maintained

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Carriage paid on all orders of 1 dozen or £1 and over.
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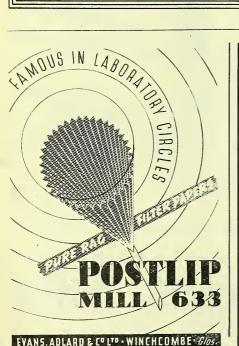
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THE ORIGINAL "WILSON"

DISPENSING SKILLETS

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In accordance with N.H.S. requirements

Size 1, 2, 3, 4, 5,

8 oz. 10 oz. 12 oz. 16 oz. 72 oz.

STERILIZED DROP BOTTLES

 $\frac{1}{4}$ oz. $\frac{1}{2}$ oz. 1 oz.

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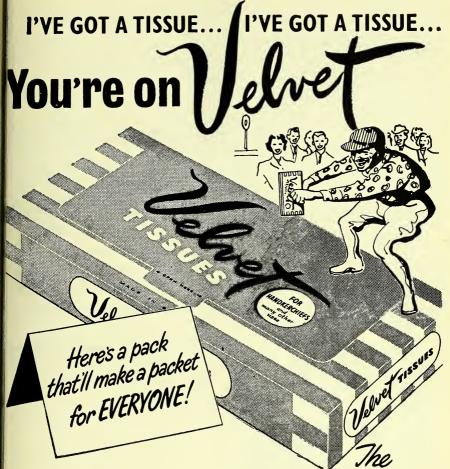
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COMPETITIVE PRICES

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... BOLD - ATTRACTIVE - COLOURFUL

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... AND BIGGER VALUE

This final sales-clinching argument, means repeat business and SEW business—size for size, price for price, quality for quality.

VELVET TISSUES ARE TODAY'S FINEST VALUE!

I/3 BOX

contains 100 (50 x 2 ply) top quality tissues

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ORDER NOW

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AMPOULES OF PYROGEN FREE WATER AND NORMAL SALINE

Penicillin with Sterilised Sulphathiazole, etc. Aqueous and Oily Injections. Full particulars on request. Also manufacturers of Surgical Ligatures and Sutures under T.S.A. Licence No. 40 CUXSON, GERRARI

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"DANZO BEETLE POWDER"

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They will help you to turn passers-by into regular customers.

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'Pineate' Honey Cough-Syrup is the nice way to tackle a nasty cough and children love it! Make sure you have stocks to meet February and March demands for a winter cough mixture for children.

ATTRACTIVE SHOW MATERIAL IS NOW AVAILABLE

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£10 and over . . . $12\frac{1}{2}\%$ £5 and over . . . 10%

PICK YOUR £10 PARCEL FROM THESE PRODUCTS :-

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YOUR SELLING PRICE = £13 6s. 8d

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the advantages of the PENTECON

Autoclave THERMOSTATIC CONTROL

The thermostat, independent of the pressure factor, is the most accurate means of obtaining a consistent temperature. Designed for use over a gas ring or portable burner, it is constantly in control, after initial adjustment to suit the requirements.

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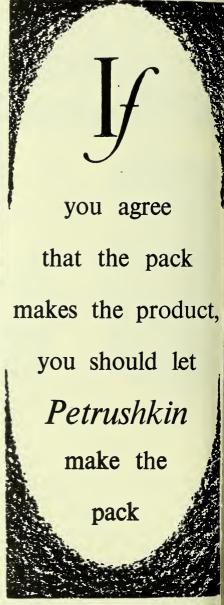
CAPACITY—11" x 10½". Contents approx. 26 pints or seven 20 oz., or M.R.C. Standard

Blood Bottles.

The 'Pentecon' is economical in price and operating costs. Price (excluding gas ring and flexible tubing, which are not £16.16.0

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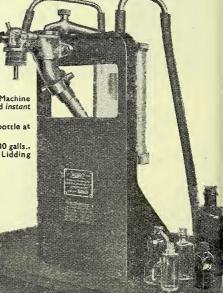
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ALBRO FILLERS are available in all capacities up to 900 galls... per hour. Rotary Fillers, Powder Fillers, Continuous Lidding Machines, etc. Full details on request.



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A NON-GREASY, NON-ADHERENT WOUND DRESSING

A bland dressing incorporating antiseptics of proved low toxicity in a sterilised glyco-gelatin base, which provides marked healing and coagulating properties.

By seepage into the wound and diffusion over the adjacent skin surfaces, the medicament rapidly inhibits Gram-Positive organisms, in particular Staph. Aureus, Strep. Haemolyticus, Strep. Viridans and also B. Pyocyaneus.

CIMLAC GAUZE is prepared to melt at body temperature and in situ will remain moist and non-adherent. Easy removal is secured without danger of rupture to the delicate epithelium and granulative tissue.

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Packed to facilitate non-touch technique in boxes of 24 pieces $4' \times 3\frac{1}{2}''$.

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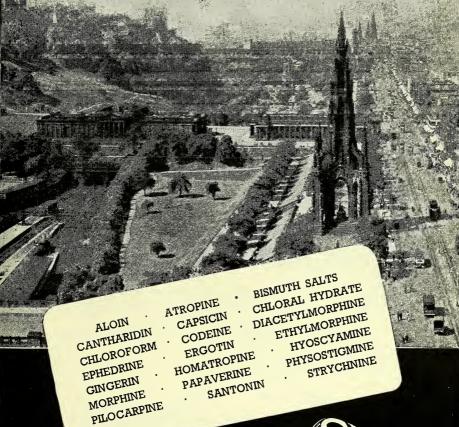
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A SELF SELLER NOT SHELF DWELLER

7" Combs to match available



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You know COX'S are —
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NATIONALLY ADVERTISED
HAVE A TWO YEAR LIFE

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New and attractive lines shortly available for 1950 • Excellent show material stocked by all wholesalers • Generous discounts • Trade enquiries welcomed from wholesalers and retailers

We impregnate hundreds of tons of card and paper for Showcards, Shelves, Mothproof Wardrobes, etc. Trade enquiries invited

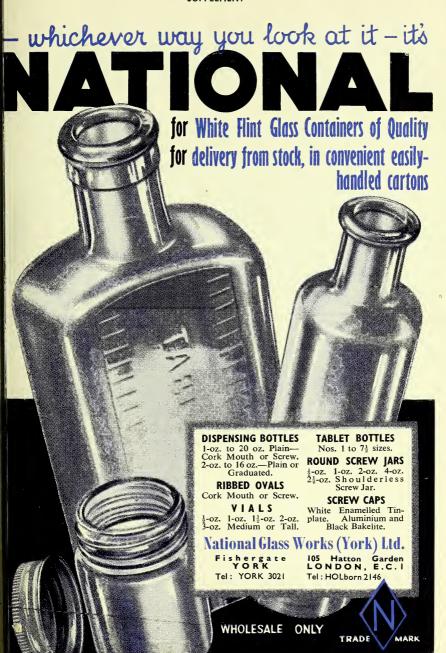
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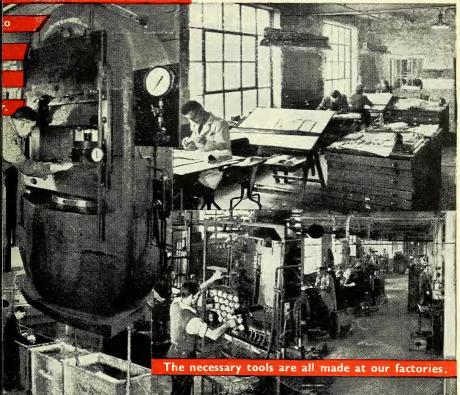
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CLOSURES
The Verfect Vair

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after the closures are moulded they

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Grams: UNGLABOMAN, LESQUARE, LONDON

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Stergene

TRODUCT OF DOME

STERGENE BIG PRICE REDUCTION

DEALER PROFIT MARGIN UP

Increasing Demand for Finest Soapless Washing Product Brings Down Costs.

The price of Stergene has been reduced. The cost to your customer is now only 1/9d. a bottle (plus 1d. deposit on bottle). The profit per bottle has not been reduced. It remains the same. The smaller initial outlay per dozen brings you the same cash return as when the former price prevailed. Thus, the profit margin has been increased. In addition, a handling allowance will be made to the trade for the trouble taken in handling empties. This we thought to be as good a way as any to pass on to all Stergene dealers part of the benefits of increased demand.

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ESSENTIAL FOOD AND DRUG CONTAINERS, MEDICAL FLATS AND PANELS, ETC., ETC.

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REGD. OFFICES: Scott House, 69 South Accommodation Rd., LEEDS, 10 Telephone: 21568 (2 lines) Telegrams Feeders: (Phone) Leeds 10 FOR EVERY MONTH OF THE YEAR

"ZEMS" HERBAL LICORICE TABLETS



THE BEST MEDICATED TABLETS FOR COUGHS, COLDS, ASTHMA, BRONCHITIS, ETC.

Supplies may be obtained



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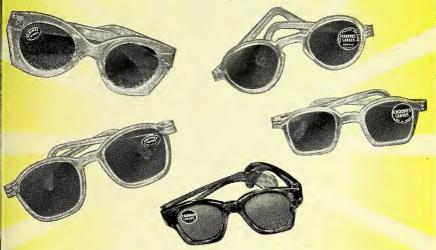
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Send for illustrated leaflet.

Before buying your Sunglasses for 1950 be sure to consider carefully this outstanding Bartlett range. Order from your wholesaler.

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a dependable aesthetically pleasing contraceptive

Physicians everywhere have welcomed this new Ortho product. Ortho-Creme, like Ortho-Gynol, is instantaneously effective, easily applied and economical.

Ortho-Creme Vaginal Cream is a product of pharmaceutical elegance calculated to appeal to the most fastidious woman.

Immediately available from your

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... Customers value your discretion so ...

before stocking up, please ask your wholesaler to show you our 1950 range — new models, keen prices. Over 15 styles from which to choose, retailing from 9d. with our popular L.2 model "Sunrex" with glass lens at 1/9. individually boxed!!

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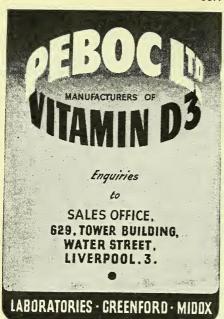
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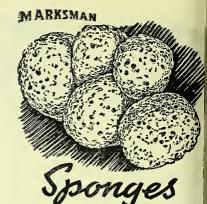
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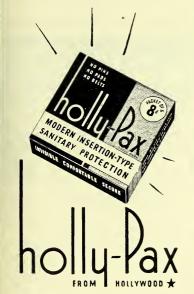
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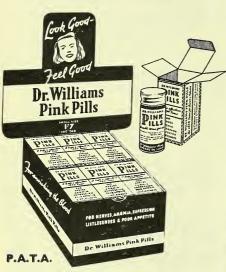
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